

21  
JUN 6 1930

Vol. 27, No. 5 : PSYCHOLOGICAL REVIEW PUBLICATIONS

May, 1930

# Psychological Bulletin

EDITED BY

SAMUEL W. FERNBERGER, UNIV. OF PENNSYLVANIA

HOWARD C. WARREN, PRINCETON UNIVERSITY (*Review*)

RAYMOND DODGE, YALE UNIVERSITY (*Monographs*)

MADISON BENTLEY, CORNELL UNIVERSITY (*J. of Exp. Psych.*)

WALTER S. HUNTER, CLARK UNIVERSITY (*Index*)

HERBERT S. LANGFELD, PRINCETON UNIVERSITY, *Business Editor*

WITH THE CO-OPERATION OF

G. W. ALLPORT, DARTMOUTH COLLEGE; J. E. ANDERSON, UNIVERSITY OF MINNESOTA; J. E. COOVER, STANFORD UNIVERSITY; W. T. HERON, UNIVERSITY OF MINNESOTA; K. S. LASHLEY, CHICAGO, ILL.; M. F. MEYER, UNIVERSITY OF MISSOURI; J. T. METCALF, UNIVERSITY OF VERMONT; R. PINTNER, COLUMBIA UNIVERSITY; E. S. ROBINSON, YALE UNIVERSITY.

## SOCIAL PSYCHOLOGY NUMBER

EDITED BY

G. W. ALLPORT

## CONTENTS

### *General Reviews and Summaries:*

*A Review of Race Psychology:* T. R. GARTH, 329. *Theory and Measurement of Attitudes and Opinions:* R. BAIN, 357. *Recent Social Psychology:* J. W. SPROWLS, 380. *Recent Studies in Sex Differences:* C. N. ALLEN, 394.

*Special Reviews:* 408.

*Books Received:* 413.

*Notes and News:* 415.

*Editorial Note:* 416.

PUBLISHED MONTHLY (EXCEPT AUGUST AND SEPTEMBER)

FOR THE AMERICAN PSYCHOLOGICAL ASSOCIATION  
BY THE PSYCHOLOGICAL REVIEW COMPANY  
PRINCETON, N. J.

Application for entry as second-class matter at the post-office at Princeton, N. J., and an additional entry at Albany, N. Y., pending.

# Psychological Review Publications of the American Psychological Association

EDITED BY

HOWARD C. WARREN, PRINCETON UNIVERSITY (*Review*)  
MADISON BENTLEY, CORNELL UNIVERSITY (*J. of Exp. Psych.*)  
RAYMOND DODGE, YALE UNIVERSITY (*Monographs*)  
SAMUEL W. FERNBERGER, UNIV. OF PENN. (*Bulletin*)  
WALTER S. HUNTER, CLARK UNIVERSITY (*Index*)  
HERBERT S. LANGFELD, PRINCETON UNIVERSITY, BUSINESS EDITOR.

WITH THE CO-OPERATION OF  
MANY DISTINGUISHED PSYCHOLOGISTS

## PSYCHOLOGICAL REVIEW

containing original contributions only, appears bi-monthly, January, March, May, July, September, and November, the six numbers comprising a volume of about 500 pages.

## PSYCHOLOGICAL BULLETIN

critical reviews of books and articles, psychological news and notes, university notices, and announcements, appears monthly, the annual volume comprising about 720 pages. Special issues of the BULLETIN consist of general reviews of recent work in some department of psychology.

## JOURNAL OF EXPERIMENTAL PSYCHOLOGY

containing original contributions of an experimental character, appears bi-monthly, February, April, June, August, October, and December, the six numbers comprising a volume of about 500 pages.

## PSYCHOLOGICAL INDEX

is a compendious bibliography of books, monographs, and articles upon psychological and cognate topics that have appeared during the year. The INDEX is issued annually, in June, and may be subscribed for in connection with the periodicals above, or purchased separately.

## PSYCHOLOGICAL MONOGRAPHS

consist of longer researches or treatises or collections of laboratory studies which it is important to publish promptly and as units. The price of single numbers varies according to their size. The MONOGRAPHS appear at irregular intervals and are gathered into volumes of about 500 pages.

## ANNUAL SUBSCRIPTION RATES

Review: \$5.50 (Foreign, \$5.75). Monographs: \$6.00 per volume (Foreign, \$6.50).  
Journal: \$6.00 (Foreign, \$6.25). Psychological Index: \$4.00.  
Bulletin: \$6.00 (Foreign, \$6.25).

Current numbers: Review or Journal, \$1.00; Bulletin, 60c.  
Review and Bulletin: \$10.00 (Foreign, \$10.50).  
Journal and Bulletin: \$11.00 (Foreign, \$11.50).  
Review and Journal: \$10.00 (Foreign, \$10.50).  
Review, Bulletin and Journal: \$15.00 (Foreign, \$15.75).  
Review, Bulletin, Journal, and Index: \$18.00 (Foreign, \$18.75).

---

Subscriptions, orders, and business communications may be sent direct to the

PSYCHOLOGICAL REVIEW COMPANY  
PRINCETON, N. J.

# THE PSYCHOLOGICAL BULLETIN

---

## A REVIEW OF RACE PSYCHOLOGY

BY THOMAS R. GARTH

*University of Denver*

Five years have elapsed since the last review of race psychology appeared in the BULLETIN.<sup>1</sup> That review covered a period of eight years. Consequently the literature of that period would be expected to be more extensive than that of the five years just past. But if one may determine the matter by length of bibliography,<sup>2</sup> the past five years have been the period of greater activity. This is true not only of race psychology as a popular theme, but as a field of scientific study as well.

The last review sought to show trends in thought and in method of investigation. That is likewise our intention in the present review. After calling attention (1) to the trends in theory and experiment, we shall give some account (2) of the popular, theoretical and scientific anthropological literature dealing with race psychology; and then follow these with (3) a detailed account of that literature which deals with experimental and statistical treatment of the problem of racial differences in mental traits, since 1924.

(1) *Trends.* Many of the current trends have been noted in previous reviews, but some are only just now making their appearance. Some of the old movements have gathered momentum and some have languished. Some of the new trends are rather weak, while some are showing great vigor. Most of the trends are the

<sup>1</sup> A Review of Race Psychology, THOMAS R. GARTH, *Psychol. Bull.*, 1925, 6, 343-364.

<sup>2</sup> The writer begs to acknowledge the coöperation of his assistant, Miss Winifred Rose, in arranging the bibliography for this review.

natural outcome of various phases of activity and a few are rather difficult to account for and come as a surprise. Briefly we list the trends below:

- (a) The interest in the general subject of race psychology.
- (b) Belief in the hypothesis of racial inequality.
- (c) The perennial interest in primitive man.
- (d) The tendency for psychologists and anthropologists to work together.
- (e) The study of racial esthetics.
- (f) The use of experimental results of the psychologists by popular and anthropological writers.
- (g) The study of race mixture and its effect on mentality.
- (h) Psychoanalysis and race.
- (i) Biographical approach to race psychology.
- (j) The study of racial attitudes, or race prejudice.
- (k) Skepticism as regards the truth of the hypothesis of racial differences in mental traits.
- (l) Various trends in the experimental attack.

(2) Popular, theoretical, and anthropological treatment. It is to be noted again, after five years of activity, that the experimental and statistical attack on the problem of racial differences in mental traits is the method by which racial psychology moves rapidly forward. This continues to be gratifying to the experimentalist. Nevertheless, the theoretical studies and popular presentation of the problem are active in rendering assistance of a most valuable sort. Such is indicated by their insistence on keeping the matter before the public, in penetrating new areas lightly esteemed at first by the experimentalist, in pondering carefully the findings of the experimentalist, in bringing new forces of endeavor into the investigation.

As for the anthropologist, who with the race psychologist has a common scientific interest, the task would be practically hopeless without his assistance. There is to be noted a somewhat more active interest on the part of these scientists indicated by a helpful participation in investigations, and a valuable scrutinizing of the results of findings.

An examination of the appended bibliography and reference will reveal that there are listed at least twenty-four books, some more or less popular, but some quite technical. Because of the limitations of space it is not possible to mention many excellent books and articles excepting by title in the Bibliography and Reference.



Starting then with the attempt to divide the writers of these books and articles into those believing, and those not believing in the Racial Mental Difference Hypothesis (34) we seem to find a trend toward skepticism with reference to this hypothesis. However, many are not much concerned with native differences, but are interested in differences as they exist as being due probably to nurture.

Koehne (85) brings to light surprising evidence that Disraeli was the forerunner and inspiration of Gobineau in his theories involving the hypothesis of the inequality of the races of men.

Lévy-Bruhl (92) maintains his former belief in essential differences between the primitive and the civilized mind, and he is insisting that among savage peoples the individual is essentially lost in the group.

The original position of that writer, belief in essential inequality, is definitely contested by Allier (2) who claims that the differences between primitives and civilized peoples are produced either by lack of proper stimulation, or by the retarding influence of magic which has prevented, in either case, the development of the primitives. The civilized and uncivilized, he thinks, must have sprung from the same ancestry. Consequently they must have basic identity. This writer on the other hand, agrees with Lévy-Bruhl that magic dominates the mind of primitive man (3), but disagrees with the latter in believing that this is necessarily a stage that cannot be overcome, and that it has prevented logical thinking as well as moral integration among those peoples. According to Allier the differences correspond to differences in advancement. He notes that civilized peoples, too, believe in magic, but only to a less degree than primitives.

Contrary to both Lévy-Bruhl and Allier, Radin (138) believes there has been an overemphasis on this phase of primitive thinking, for if we disregard ritual and art, he sees no evidence that mysticism and symbolism dominate the life of the primitive man. While it may appear that the primitive's thought is non-logical, a close examination proves this to be incorrect. Radin holds that the assumption that primitive mind is at a dead level of intelligence, that such minds are bound down by group thought, that there is no intellectual class, is a gross misstatement of the facts. To quote: "No qualified observer of the customs of primitive man has ever denied the existence of thinkers among them" (138, p. 385).

The book, *Psychology and Ethnology*, by Rivers (142), who until he was well established in psychology, found no particular interest in ethnology, is a most attractive one. He was peculiarly prepared

to write on the psychological phases of ethnology since he organized and carried out the "first systematic fieldwork in the experimental psychology of primitive people" (Introduction XI—G. E. Smith). Rivers takes issue with Lévy-Bruhl in thinking that the mind of primitive man is "prelogical" as distinguished from ours which would be called logical (p. 53). "I may say that in intellectual concentration, as well as in many other psychological processes, I have been able to detect no essential differences between Melanesian or Toda and those with whom I have been accustomed to mix in the life of our country."

Nutting (123) who traveled much among primitive peoples says he is convinced there are no racial inequalities, also that there are no differences in brain structure.

Boas' work on primitive art (10) affords the student interested in racial esthetics a storehouse of valuable information, and a superb organization and systematization of facts and principles. It would be impossible to give a review of this book of any adequate proportions here. The conclusion to be drawn is that the same esthetic principles apply to all art. Luquet (99) insists that the art of primitive peoples reflecting their mental life shows them to be on the level of children. However, the reviewer is sure many would disagree with this conclusion. Somewhat in keeping with this view is that of Marsumoto (105) who indicates that the progress of art among peoples follows after the progress in art of the individual. If this is considered after the fashion of a learning curve, he believes that the art of civilized peoples is arrested upon a dead level. Rattray (137) points out that, especially in the case of the Ashanti, art and all phases of primitive life are closely interwoven with their religious life and activity. Following this as an illustration we have Renaud's account (138) of prehistoric female figurines indicating that prehistoric man in Asia and Europe were devotees of a female benevolent divinity. Bunzel (15) in a study of primitive art particularly with reference to its creative phase believes the Pueblo potter follows a blind unconscious lead in his better artistic production.

Crawley (19) in "Studies of Savages and Sex" gives a treatment of sexual anthropology on the psychological side especially. Here he discusses savage forms of love, the kiss, chastity, and of sex life of savages generally. This phase is also well handled by Malinowski (103). G. B. Johnson (79) after a thoroughgoing study of "Negro Blues" which are so much in evidence among present day popular songs, in addition to research into Negro life, particularly

into Negro vulgar expressions, concludes that these "popular blues songs" have a double meaning. He calls attention to the fact that the educated Negro is opposed to the "Blues Songs" which is possibly an implicit recognition of their deep obscene undercurrent.

Mead (108) deals especially with the adolescent psychology of some fifty Samoan girls. She finds them rather free from conflicts in ideals because of the freedom of sexual life permitted by certain cultural factors.

The question of racial purity is one of considerable importance in the study of racial psychology. We cannot speak of a race if we know nothing of its purity, its composition. For this reason the anthropological study by Chu Li (94) on the racial composition of the Chinese is of peculiar interest. In this study the investigator and author lays out the characteristics of the more typical Chinese, the "We-group" as compared with the "You-group," a group of less typical and more varied characteristics. He finds the best distinguishing trait to be the shape of the head. It is objected by Terry (156) that the factor of race composition has not been recognized sufficiently in the study of the American Negro. The mulatto may be as much White as Negro, but society makes him a Negro. Fleure (32) points out, apropos of our disposition to classify individuals on a basis of skin color that the skin of man has adapted itself to the climate by either becoming thicker and depigmented as a protection against the cold, or of a looser texture and of a darkened color as a protection against heat. Weidenreich (167) raises the question as to the cause of various body-build types found in the United States. They may be due to racial differences rather than differences in constitution.

Herskovits (66 and 67) by making genealogical investigations found only 20 per cent of American Negroes to be of pure blood, the mixtures being with Whites and Indians. In so far as mating between Whites and Negroes is concerned, whether legitimate or not, it has decreased. But among Negroes and mulattoes there is a preference for mates of similar color. Herskovits investigated to find the influence of white blood as indicated by various somatological characteristics (skin color, lip thickness, nose width, etc.) and genealogical records, and found no significant correlations. However, his group was a select one.

Boas (9), while endeavoring directly to show the uses to which the science of anthropology may be put in assisting human progress and life, does not neglect to note the relation between psychology and

anthropology. With Boas it seems almost a hopeless task ever to indicate any racial differences in mental traits because of differences in individuals' experiences within a race, and because of native differences among individuals which are greater than the group differences. It is intimated that there may be a basis for racial differences running with somatological differences, but this is not very clearly indicated.

While anthropologists are endeavoring to coöperate with the experimental psychologist, there are instances in which these workers discredit the results of mental tests. Boas (9) points out that since the tests measure functions only it is difficult to know when these measure native character, and Estabrooks (28) insists that intelligence testing has failed to satisfy the anthropologist. On the other hand it is pointed out by SenGupta (149) that psychological and psychophysical tests afford the soundest approach for work in the field of race psychology, though no single method should be used alone.

The oft repeated caution is again sounded by Wallis (164) that it is difficult to interpret results of mental tests on such primitives as the Zulus because of the standardization of these tests on Anglo-Saxons.

Roback (143), discussing the possible inferiority complex of the Jews, concludes that they possess such a complex. He thinks that little can be done about it, however, excepting to face the situation frankly.

McCartney (107) claims to have found various symbolism in prehistoric Chinese art and suggests that when the Chinese libido has become "freed," there will be a decided awakening for these people. Travaglino (160) after an examination of one hundred men and women among the Javanese concludes that this race is in a "primitive, catathymic, animistic stage." In consequence numerous mental diseases have a development that is different.

One of the interesting movements in race psychology is racial autobiography. Two books as frankly intimate from an introspective standpoint as the famous Confessions of St. Augustine have made their appearance. One is the inner picture of the mental life of a Black Ulysses, particularly the moods popularly characterized as "blues," with a title, *Rainbow Round My Shoulder*. To Odum (124) we are indebted for this remarkable contribution. The other is a frank and intimate reminiscence of an American Indian edited by Radin. The title is *Crashing Thunder* (135). The editor finds evidence of wish-fulfillment, disposition to commune with spirits.



There is a remarkable account of how the hero ate peyote and his introspections consequent upon the deed.

Popular literature is taking hold of this interest, and so there have appeared some pseudoautobiographies. Some of these are quite remarkable, and one might wish them to be authentic because of the striking truths which they contain.<sup>3</sup>

Reuter (139) indicates a growing of race prejudice among Whites and Negroes. While his book is more or less historical and sociological, it indicates a growth of race consciousness among the Negroes. Race progress on the part of the Negro is being hindered by race prejudice.

Frobenius undertakes to trace certain Negro potentialities from early African cultures to ascertain whether these can endure when transplanted. De Noyelles (24) observes that as between the White and Negro unskilled laborer the White is the better worker especially when no definite specified task has been set.

In *What the Negro Thinks* by Moton (113), himself a Negro, we have a very intelligent presentation of the Negro's reaction to his American social, economic, and intellectual environment. It may well be regarded as a true picture of what the educated Negro thinks as well as an account of his aspirations.

One of the most interesting trends in both discussion and experimentation is that of inquiry into race prejudice and racial attitudes. The question is raised as to whether or not the prejudice is of the nature of an "instinct." Lasker (90) while granting that children may have a native aversion to people of a strange race concludes that it is of slight degree at best, and grows stronger with increasing years. The early state of affairs instead of being abated by adult contacts is made all the more ingrained. However, the influence is so subtle that he is not aware of how it came about. Park (126) considers prejudice an attitude which is the mark of resistance on the part of the social order to change, and this is due to something more or less "instinctive" which may be described as consciousness of difference giving rise to "a vague apprehension." Race prejudice, it is pointed out by Park, may at one time have been advantageous to a given race in leading to solidarity, but now it promises to be a dangerous "instrument."

That race prejudice does not have the criterion of universality to make it an instinct is shown by the statement of Hobhouse (70) that

<sup>3</sup> Cf. *The Autobiography of an Ex-Colored Man*, by JAMES WELDON JOHNSON. Alfred A. Knopf.

TABLE I

DATE	INVESTIGATORS	RACE	NO. CASES	TEST	RESULTS
1925	Garth and Whitley (39)	Negroes	1272	N.I.T.	Med. I.Q. of 75.
1925	Mercer (111)	Negroes	1006	Color Pref.	Sequence: B, O, V, R, Y, W, G.
1925	Sunne (154)	Negroes	292	Will Temp.	Racial profiles similar. Striking individual differences.
1925	Murchison and Burfield (114)	Whites	232	X-O	Negro criminals are superior to Negro non-crim.
1925	Murchison and Burfield (114)	Negroes	370	Army Alpha	Whites excel in ingenuity. Whites more speedy.
1925	Peterson, J. et al. (129)	Whites	74	Rational learning	No correlation between intelligence and emotions.
1925	Peterson, J. et al. (129)	Negroes	48	Ment. Maze Disc. transfer	No significant correlations.
1926	Bond (12)	Negro	175	Color Naming	Women are lower than men.
1926	Bond (12)	Negro	175	Terman Gr.	Red and blue pref. to yellow and green.
1926	Bond (12)	Negro	175	Olis	Diff. between Neg. and Whites. Uneven with age except in lower grades.
1926	Bond (12)	Negro	175	Downey Will Temp.	Blue and pink most preferred. I.Q. makes little difference.
1926	Herskovitz, M. J. (66)	Mixed blood Negroes	115	Anthr.	Educ. retardation of Neg. Younger White normals.
1926	Murchison (115)	Negroes, women	41	Ment. Meas.	Med. I.Q. 78. Influence of education evident.
1926	Murchison (115)	Negroes, men	184	Thorndike Col. Ent. Exams.	Whites excel Negroes.
1927	Arlitt and Buckner (4)	3 yr. Negro	23	Army Alpha	Rank in excellence: (1) White, (2) Mex., (3) Neg. City excel rural subjects.
1927	Arlitt and Buckner (4)	3 yr. White	24	Color Pref.	Problems of folk music can now be solved.
1927	Graham (57)	Negroes	3028	Stanford-Binet	Whites superior to Neg. Mulattoes superior to dark Negroes.
1927	Graham (57)	Negroes	3028	Kohs Block	
1927	Graham (57)	Negroes	3028	Lincoln	
1927	Graham (57)	Negroes	3028	Holden Sq.	
1927	Graham (57)	Negroes	3028	Healy Con.	
1927	Hurluck (75)	Whites	206	Color Pref.	
1927	Hurluck (75)	Negroes	194	N.I.T.	
1927	Witty and Decker (169)	Whites	1725	Stanford	
1928	Davis (23)	Negroes	220	Achievement	
1928	Davis (23)	Negroes	222	Terman Group	
1928	Davenport, C. B. (21)	Negroes of the West	500 adults	Army Alpha	
1928	Davenport, C. B. (21)	500 children	Binet	Goddard	
1928	Koch, H. L., and Simmons, R. (84)	Whites	1211	Meyer Pant.	
1928	Koch, H. L., and Simmons, R. (84)	Mexicans	1492	N.I.T.	
1928	Metfessel, M. (112)	Negroes	613	Pint. Cun.	
1928	Metfessel, M. (112)	Negroes	613	Phonography in Folk Music	
1929	Grey, C. T., and Bingham, C. W. (60)	Negroes	258	Seashore (4 tests): Pitch, Intensity, Memory, and Time	
1929	Grey, C. T., and Bingham, C. W. (60)	Whites	219		

1929	Peterson and Lanier (129)	Whites.....	490	Binet Adap.	Northern Negroes more speedy than southern. Nor. Neg. equal whites in Rat'l Learning. Positive correlation between skin color and intelligence.
		Negroes.....	561	Rat'l Learn	
				Ment. Maze	
				Disc. Trans.	
				Int. Group	
				Myers Ment.	
				Mus. Tal.	
				Will Temp.	
				Otis Self-Administering	
1929	Price, J. (134)	Negroes in Neg. Colleges.....	857		Overlapping in Whites 20%: Negro med. 38.8; White med. 49.6. No dif. between Neg. in Neg. colleges and Neg. in White Col.
		Whites.....	954		Whites excel Neg. in Int. score
1929	Young, Paul C. (176)	Negroes in White Colleges.....	112	Adap. of Binet	Lighter Neg. excel darker Neg. more suggestible attitude. Negroes more critical.
		Negroes.....	314	Suggest.	Med. I.Q. 68.6, Q. 10.3.
		Whites.....	323		Med. I.Q. 87
1925	Garth et al. (38)	Amer. Indians.....	1050	N.I.T.	No reliable difference between Ind. and Mex.
1926	Fitzgerald and Ludeman (31)	Indians—Mixed and Full-blood.....	83	N.I.T.	Indians seem more strongly dexteral than Whites.
1927	Blackwood, B. (7)	Indians.....	413	Otis	No differences.
1927	Downey (26)	Mexicans.....	200	Terman	Degree $\frac{1}{2}$ I.Q. 77 Correlation between degree and I.Q. Degree $\frac{1}{2}$ I.Q. 74 with age and educ. constant—42.
1927	Garth (43)	Amer. Ind.....	56	Intern'l Gr.	Nomadic 35% better than Sedentary.
1927	Garth et al. (44)	Whites.....	141	Otis Self Adm.	Whites have stronger personalities.
		Mixed-blood Indians.....	765	Various observa.	Indians slower but more accurate.
				Handedness	Publ. Sch. students slightly superior to U. S. School Indians, but Whites superior to all.
				Community of ideas	Nomadic 35% better than sed. on the average.
				N.I.T.	No dif. which are significant.
1927	Garth (42)	Nomadic Ind.....	215	Psych. Tests	Med. I.Q. 70. I.Q. rises with school grade. Educ. a strong factor.
1927	Garth and Barnard (46)	Sedentary Indians.....	243	Fatigue	
		Full-blood Indians.....	170	Downey Group	
		Whites.....	101	Will-temp.	
1927	Klineberg (82)	Amer. Ind.....	120	Psych. Tests	
		Whites.....	110	N.I.T.	
1928	Garth and Garrett (47)	Mixed-B. Ind.....	942		
		Full-B. Ind.....	1313		
		Whites in P.S.....	387		
		U.S. Schools I.b.....	1032		
1927	Garth (45)	Indians Nomadic.....	631	Various	
		Sedentary.....	215	Psy. Gr.	
			243	Tests	
1928	Garth and Isbell (50)	Mixed and Full-blood Indians.....	757	Seashore Musical Talent Test	
1928	Garth et al. (51)	Full-blood Indians.....	1000	Otis Classification	

TABLE I—Continued

DATE	INVESTIGATORS	RACE	NO. CASES	TEST	RESULTS
1925	Jamieson and Sandiford (77)	Mixed-blood Indians	717	N.I.T. and Non-Lang-Pint. Perf.	Mixed-blood Ind. have Non-Lang I.Q. of 97. Perf. I.Q. of 92.
1925	Klineberg (83)	Indians.	284	Various Psychl. Tests	Indians and Negroes more accurate but slower.
1927	Gesche (54)	Whites.	125		
		Negroes.	329		
1927	Gesche (54)	Mexican.	1152	Color Prefer.	Sequence R, G, B, V, O, W, Y.
1928	Garth (49)	Mexican.	1004	N.I.T.	I.Q. 78.
1928	Garretson (36)	American.	117	N.I.T. Pintner Cunningham	Educ. retardations of Mex. 10 mos.
		Mexicans.	119	Myers Pantomime	Chief cause mental ability; Lang. handicap not serious in mental test.
1929	Manuel and Wright (104)	Spanish Speaking Mexicans	128	Spanish Trans. Reading	Ave. I.Q. Mex. below Americans.
		Others English speaking	450	Stanford Achievement	Doubtful interpretation.
1926	Davie (20)	(race not indicated)	658	Reading Ex. and English form	
		Japanese (Amer. born)	658	St.-Binet	I.Q. (Binet) 91.
				Army Beta	Achievement scores equal to Whites.
				Personality	In Personality inferior to Whites.
				Color Pref.	Color sequence: B, R, G, Y, V, O.
1925	Imada (76)	Japanese.	1212	Various Psy. tests	Jap. excel Formosan children. Jap. prefer blue and purple. Formosans prefer red.
1926	Kuwata (87)	Japanese.	660	Color Pref.	Influence of education very strong.
		Formosans.	643		A bilingualism is a handicap. Jap. fell below Amer. norm in English tests and below Tokyo norms in Japanese tests (Tokyo norms often higher than Amer. norms).
1926	Tanaker, S. (155)	Japanese, boys.	140	Moral and social evaluation of words	Binet I.Q. 86.6; Army Short I.Q. 91.
1929	Yoshioka, J. G. (174)	Japanese	98	N.I.T. form	
		Japanese (America)	38	Jap. form	
1926	Graham (58)	Chinese (San Francisco)	73	Binet Short	Chinese Med. I.Q. 107.2.
				Army	Jap. Med. I.Q. 114.2.
				N.I.T.	Chinese rate themselves low.
1926	Sandiford and Kerr (146)	Chinese.	224	Metimeter	Inferior to White normals. (Tests need to be adapted to Filipinos.)
1927	Traw and Pu (161)	Chinese (Vancouver)	276	Pintner	Italians inferior.
		Chinese.	18	Patterson Perform.	
1926	Carreon (16)	Filipinos.	665	Personality self-rating	
				Haggerty	
1926	Graham (56)	Italians.	43	St.-Binet and various	
		Jews.	69	Pintner	
		Americans.	60	Patterson	
				Healy P.C.I., etc.	



1927	Davis and Hughes (22)	Jews.....1090 Non-Jews.....814	Northumberland Standardized Tests in intel. and achievement Color Preference	Jews superior.
1929	Garth and Collado (52)	Philipinos.....1004		Rank of colors: R, G, B, V, O, W, Y. Young Filipinos similar to young of other races.
1927	Wolberg, D. (170)	Jews.....	Geometric figures, etc.	Jews inferior.
1929	Garrett, H. C. (37)	Non-Jews.....295 Jews and others.....	Thorndike Int. test G. Wash. Soc. Int. Laird Pers. Inventory	Jews superior in intelligence and achievement, not in emotional stabil- ity.
1927	Mead (109)	Americans.....160	Otis	Ital. inferior to Amer. because of language handicap.
1927	Pintner (131)	Italians.....276 Belgians.....100	Intel. Non-Lang.	No dif. from Amer. normals.
1929	Wood, M. M. (172)	Bulgarian.....20 Turks.....26 Armenians.....27 Greeks.....23 Various Nationalities.....24	Otis Self-administration	I.Q., 96.0. I.Q., 95.5. I.Q., 94.3. I.Q., 92.6. + 100.
1926	Kirkpatrick (61)	Americans.....147 Finns.....158 French Can.....96 Italians.....212 Chinese.....229 Japanese.....105 Hawaiians.....105 Portuguese.....276 Jews.....452 Italians.....438 Miscel.....	Illinois test (Army Beta no I.Q.)  St.-Binet N.I.T. Maze form test N.I.T.	In Binet and N.I.T.: 87.2 Chinese highest of all, but Amer. 84.6 Jap. highest in Maze test 84.3 Hawaiian highest in form test. Jews excel Italians.
1926	Porteus and Babcock (133)	Chinese.....	Picture test	Irish and German more romantic. Italians more classical.
1926	Smith, M. E. W. (151)	German } 1200 Italian } Chinese.....34	Ohio State Univ. Test	Chinese show lang. handicap. Nothing signif. for Russians and Negroes.
1928	Wang (166)	Russians.....45	Anthropological meas.	Classified are below. Unclassified are average. "Pure bloods" inferior. English highest.
1928	Hayes, E. C. (64)	Nordic, Alpine.....435	Scholarship Intel.	
1928	Lima (95)	Mixed group—26 nationalities reported.	Intel. and Reading	Native Amer. excel in intel., but probably due to a language handicap.
1928	Rigg, M. (141)	Native Amer.....8135 Foreign.....1949 German.....1095 Italians.....140 Bohemians.....118 Jews.....445 Miscel.....151		
1928	Arthur, G. (5)	I. Immigrant (Surnames) Finns, Russians, and So. Europeans 70 pr. (siblings)	Kulmann Binet	I.Q. of younger higher than older group I.

TABLE I—Continued

DATE	INVESTIGATORS	RACE	No. CASES	TEST	RESULTS
		II. Americans (Surnames) 70			No significant differences group II.
1925	Abell (1)	Polish, pr. (siblings)	156	Questionnaires	All intellectual. Some more neurotic than others.
		Polish	147		
		French	119		
1926	Goodenough (55)	Americans	122	Goodenough Non-Lang. Intelligence	Med. I.Q. 100.3.
		Americans	500		Med. I.Q. 91.8.
		Italians	153		Med. I.Q. 87.5.
		Sp. Mexicans	367		Med. I.Q. 87.2.
		Negro (Cal.)	87		Med. I.Q. 82.7.
		Negro (South)	613		Med. I.Q. 76.5.
		Indians	79		Med. I.Q. 85.6.
		Jews	55		Med. I.Q. 106.3.
1929	Scott (147)	Mixed Amer. born W.	181	N.I.T.	No difference among whites; Mexicans inferior.
		Mixed Europ.	1731	or St. Achievement	
		German	591		
		German	191		
		Mexicans	250		
1926	Hirsch (68)	Polish Jews	75	Pintner Cunningham Dearborn "A" and "C"	I.Q. Group
		Swedes	232	Tests largely non-Lang. excepting Dearborn "C" which is about 1/4 language	102.8.
		Englsh	213	(97% 15 years and less. Language handicap negligible.)	102.1.
		Russ. Jews	627		100.7.
		German	190		99.5.
		Americans	1030		98.5.
		Lithuanians	468		98.3.
		Irish	214		97.4.
		British Can.	115		95.9.
		Russians	90		93.8.
		Poles	227		90.0.
		Greeks	270		89.6.
		Italian	350		87.8.
		French Can.	243		85.3.
		Negroes	449		85.3.
1927	Frederick, R. (33)	Portuguese	671	Social Attitude test	84.6.
1927	Orata (125)	Various students in high school	58	Attitudes toward orientals	82.7.
		Whites	58		
1927	Young (175)	Whites	150	Racial attitudes test	
1928	Lapiere (89)	French	428	Attitudes	Narrow prejudice against other races.
1928	Thurstone (154)	English	315	Rating	College courses make little difference in producing openmindedness.
		Whites	239		Test before and after course on race showed improvement.
1928	Bogardus (11)	Whites, U. S.	1725	Attitude Relations	French less prejudiced toward colored race.
					Rank on scale: (1) American, (2) English, (3) Scotch, Turka and Negroes last.
					A sort of social scale for 40 different races.

primitive groups are not found to be constantly at war with each other; neither do they have perpetual peace in their inter-tribal relations.

(3) *Experimental and Statistical.* First we call the attention of the reader to the tables. Table I shows the array of the studies of the last five years. Table II shows the races studied, the year, and the total number of cases in the span of five years for a racial group, also number of individual studies. Table III indicates the type of test and method used and the year.

The first book embodying experimental results rather exclusively was *Race and Temperament*, by Porteus and Babcock, which appeared in the year 1926 (133). However, many more or less extensive monographs have made their appearance, and this would seem to indicate an importance attached to the subject by investigators. In

TABLE II  
GROUPS OF PEOPLES STUDIED AND YEAR

	1925	1926	1927	1928	1929	Total	No. of Cases
Negro (American) .....	5	6	4	5	5	25	7,158
Indian (American) .....	1	2	6	5	0	14	5,795
Mexican .....	0	2	1	3	1	7	4,140
Chinese .....	0	4	1	0	0	5	561
Japanese .....	0	6	0	0	1	7	3,311
Hawaiian .....	0	1	0	0	0	1	105
Jews .....	0	7	2	1	1	11	1,837
Italians .....	0	6	1	1	0	8	1,814
English .....	0	1	1	1	0	3	1,342
German .....	0	2	0	1	0	3	1,285
Swedes .....	0	1	0	0	0	1	253
Finns .....	0	2	0	0	0	2	147
Portuguese .....	0	2	0	0	0	2	776
French .....	0	1	0	1	0	2	428
Irish .....	0	2	0	0	0	2	214
Turks .....	0	0	0	0	1	1	26
Greeks .....	0	1	0	0	1	2	293
Bulgarians .....	0	0	0	0	1	1	20
Filipinos .....	0	1	0	0	1	2	1,669
Belgians .....	0	0	1	0	0	1	100
Formosans .....	0	1	0	0	0	1	643
French Canadians .....	0	2	0	0	0	2	399
Russians .....	0	1	0	0	0	1	135
Polish .....	0	1	0	0	0	1	156
Bohemians .....	0	0	0	1	0	1	118
Czechs .....	0	1	0	0	0	1	147
Armenians .....	0	1	0	0	1	2	150
British Canadians .....	0	1	0	0	0	1	115
Lithuanians .....	0	1	0	0	0	1	468
Miscel. (Race not indicated) ..	2	1	9	3	6	22	3,427
Total .....	8	57	26	22	19	132	36,882
No. of Individual Studies...	8	19	20	17	9	73	

the last five years no less than ten of these monographs have come from the press.

It is impossible to mention all the experimental studies in detail because of their number, 73. The reader's attention is called to the Tables I and II for detailed information and to the bibliographical references.

The problem just now of prime importance to the investigator seems to be that of differences in intelligence among racial groups. Nevertheless, a great deal of attention is being given to other phases of mental life, some related to intelligence as learning, temperament, musical talent, power of concentration, "mental fatigue," esthetic reaction, color preference, etc. One neglected phase is educational achievement, and this should become a popular field of labor.

Examination of Table II indicates that the period of greatest activity in the last five years was the year 1927. The reviewer can offer no certain explanation of this fact. However, experimentation in race psychology is evidently not languishing, though interest shows some fluctuation.

As to the methods and tests used in experimentation in race psychology one new trend is the rating method, so lightly held in many quarters. The object of the method is to reveal racial attitudes, though this is not always the case because some studies of racial personality have been undertaken by the rating method. It is evident that the method is being more and more perfected so that the results available will be received with more scientific favor. See Thurstone (158).

The performance test, individual, has been more used as has the non-language test in its various forms. A new test of this sort is

TABLE III  
SHOWING KINDS OF TESTS, METHOD AND YEAR

Test or Method	Year					Total
	1925	1926	1927	1928	1929	
Individual Intelligence .....		5	1			6
Group Intelligence .....	3	16	9	12	9	49
Individual Psychological .....			2	1	2	5
Group Psychological .....	2	1	3		3	9
Individ. Performance .....	2	3	3	1	2	11
Group Non-language .....		6	3	3	3	15
Group Personal and Will-Temp.....	2	3	1		2	8
Group Esthetic .....	1	3	4			8
Achievement .....		1	2	3		6
Group Musical Talent.....				1	1	2
Individual Musical Talent.....				1		1
Attitudes .....		1	2	3		6



the International Test which is being perfected by Dodds (7). Numerous tests of esthetic reaction are being slightly more used than formerly.

The study of mixed bloods by means of correlation is due to be a very strong trend. One can see its gathering force. This is especially true when we take into consideration the correlation of intelligence and anthropological measurements in the case of mixed bloods. One much needed measurement is that of social status of the mixed bloods; another is correlation between the above mentioned measures and the genealogies of mixed bloods, say of Negroes, Indians, and Mexicans.

It will be seen that the racial group most tested is, as at the time of the last review, the American Negro. Most of the testing has been on the southern Negro, the reason being probably that he is more readily available than the Negro in the north. The figures show that there were 7,158 subjected to various tests. The next most tested group is the American Indian of whom there were tested 5,795. Most of these evidently were those Indian children found in the United States government schools, though a few were found in the common schools. These subjects consisted of full and mixed bloods, though most of them were probably full-blood Indians. The next group in point of numbers tested was the Mexican in the United States. This marks a new trend, for in the period preceding the last five years the Mexican had been little investigated. If one will examine the table, one will see that the Japanese come next. Of course, since figures from the Orient are not readily available, this has little significance.

It must not be supposed that Table I is exhaustive; however, it gives some idea of the number and distribution of the peoples tested in the last five years in experimental studies.

Peterson and Lanier (129) studied for purposes of comparison twelve-year-old northern and southern Negroes in their performance on various intelligence and other tests. They found the northern Negroes superior to the southern Negroes in intelligence test scores, but found both Negro groups inferior to similarly tested twelve year old Whites. In speed of reaction in Rational Learning the Whites excelled the Negroes. Adult groups of Negroes and Whites were tested in musical ability, but the investigators found no evidence of difference satisfactory to them. They found the Downey Will-Temperament Test unsuitable for race work. Coefficients ranging from  $-.15$  to  $.39$  were found between intelligence scores and various anthropological measurements.

Davenport (21) from results obtained on Negroes in the West Indies concludes that the Negroes are inferior to the Whites tested. Koch and Simmons (84) found rural Negroes and Mexicans inferior to rural Whites. Similar results for the city groups were found. Garth and Whatley (39) tested Negroes of Texas cities, and obtained a group I.Q. of 75. Price (134), testing in Negro colleges, found his subjects inferior to Whites. Davis (23) found for southern Negroes in junior high schools an I.Q. of 78. Young (176) found Louisiana Negroes inferior to his White group in intelligence, and the Negroes more suggestible.

Herskovits (65) found no significant correlation between anthropometric measures of Negroes and intelligence scores. Mercer (111) and Arlitt and Buckner (4) investigated the color preferences of Negroes. Both studies reveal that young Negroes prefer red and blue. Mercer's study showed that the color preference changes with increased education. Gray and Bingham (60) found Whites excelling Negroes in the Musical Talent Test.

Metfessel (112) with the sound photography camera made a study of the folk music of the American Negro. The method is called *phonophotography*, and by it the sound wave produced by the voice of the singer is photographed on a moving picture film by light points. He concludes that present concepts of music of a traditional character are not sufficient for description of folk music, and that many problems of primitive music may now be solved.

Johnson (78) reports that after using the Seashore Musical Talent Tests on 3,500 Negroes, he finds no essential differences in sensory musical capacity of Negroes as compared with Whites. However, he believes that the Negro voice is superior to that of the Whites as respects quality.

Thirteen studies on the American Indian have been reported. Garth and coworkers (44) found group I.Q.'s ranging around 70 for full bloods; and for mixed bloods I.Q.'s increasing slightly with degree of White blood, a correlation of .42. It is shown that the coefficient is larger for the less educated, and smaller for the more educated mixed blood Indians, running from .75 to .20. When comparing Indians in the government schools with those in the public schools the I.Q.'s tend to increase more with education in the former than in the latter for full bloods (47). Klineberg (82) found Indians slower, but more accurate than Whites in speed tests. This he found to be true for Negroes when compared with Whites (82 and 83). Fitzgerald and Ludemann (31) found an I.Q. of 87 for

mixed blood Indians, but the degree of blood was not determined. With a non-language test Jamieson and Sandiford (77) found for a large group of mixed bloods an I.Q. of 97.

Garth and Barnard (46) administered the Downey Will-Temperament Test to full blood Indians and Whites. While their measured results show great variability, they draw some conclusions, one of which is that on the whole, in the light of the interpretation of the author of the test, that Whites appear to have the stronger personalities.

Garth and Isbell (50) studied the musical talent of full and mixed blood Indians with the Seashore Test. They interpret the data as indicating no racial differences in musical talent.

Blackwood (7) administered the International Group Mental Test to Indians and Mexicans, but found no significant difference between the scores of these peoples.

Downey (26) in tests for handedness found Italians more strongly dextral than Whites.

Garth (49) reports a median N.I.T.-I.Q. of 78 for a group of 1,004 Mexicans. Garretson (36) using various non-language tests found the Mexicans below the performance of Americans. Good-enough (55) with a non-language test found for a group of 367 Spanish Mexicans an I.Q. of 87. See also Koch and Simmons (84).

Gesche (54) tested over a thousand Mexicans for color preference, and found that while Mexicans and other peoples are similar in their color preferences when they are young, education makes a difference, and probably follows tribal preferences. For the total group, 1,152, she found the Mexicans' color preferences to be as ranked: Red, green, blue, violet, orange, white, and yellow.

The most important study of Japanese in the United States was on school children by Darsie (20). In a group of 658 he obtained results indicating an average Binet I.Q. of 91. With the Army Beta he obtained measures of the Japanese children equal to that of the Whites. This investigator concluded that if allowance be made for the language handicap the Japanese would have an I.Q. around 99 or 100. Yoshioka (174) studied Japanese children in the United States likewise to ascertain the effect of bilingualism. He used the National Intelligence Test, and a Japanese translation of the same on thirty-eight children. The children tested fell below the White norms in the United States, and Japanese norms obtained with the N.I.T. in Tokyo. His conclusion is that bilingualism is a handicap to the child. Kuwata (87) reports the comparison of 660 Japanese and 643

Formosans in their performance of psychological tests. The Japanese children excel the Formosan children. Kuwata also administered a color preference test. The Japanese preferred blue and the Formosans preferred red.

Imada (76) administered a color preference test to 1,212 Japanese in Japan. The color preferences in order are: Blue, red, green, yellow, violet, orange for the group.

Graham (58) obtained a Binet I.Q. of 86.6 for a small group of Chinese, 73, in San Francisco. Sandiford and Kerr (146), using over two hundred each of Chinese and Japanese subjects (Vancouver), obtained with the Pintner-Patterson Performance Test a median I.Q. of 107.2 for the Chinese and 114.2 for the Japanese.

Very striking results have been secured from testing immigrant groups. Arthur (5) found in testing siblings of immigrant families that the younger children had higher I.Q.'s than their older sibs. The 92 pairs of sibs were from families of Finns, Russians, and southern Europeans. Hirsch (68) tested large groups of immigrant children. The highest I.Q.'s were obtained by Polish Jews, Swedes, English, Russian Jews, Germans, Armenians, Lithuanians; beginning with 102.8 and ending with 97.4 I.Q. The lowest average I.Q.'s was obtained by the Portuguese group which was composed of 671 individuals. The results are interesting since the tests were largely non-language tests.

Pintner (131) in testing Belgians in Belgium found norms no different from American norms for his non-language test. Carreon (16) administered the Haggerty Test to Filipinos with no conclusive results. Porteus and Babcock (133) testing in Hawaii with the Stanford Binet and other tests found the Chinese with highest I.Q.'s in comparison with Japanese, Hawaiians, and Portuguese. The Hawaiian boys were highest in the form test. Wood (172) tested Bulgarians, Turks, Armenians, and others in Constantinople with the Otis Self-Administering Intelligence Test. The Bulgarian group was shown to have the highest I.Q.—96, the Turks were next with an I.Q. of 95.5. The Armenians and Greeks received I.Q.'s of 94 and 92 respectively.

Garrett (37) tested Jews and others with Thorndike Intelligence Test, George Washington Social Intelligence Test and Laird Personal Inventory Test. The Jews, he reports, are superior in intelligence and achievement, but not in emotional stability. Wolberg (170) in comparing Jews and non-Jews with recognition of geometrical figures found the Jews to rank lower than the non-Jews. In Great



Britain Davies and Hughes tested Jews and non-Jews with the Northumberland Standardized Tests in Intelligence and Achievement. The results showed the Jews to be superior to the other group. Graham (56) administered the Stanford Binet and various performance tests to Italians, Jews, and Americans. In this study the Italians were found to be inferior to the others.

Garth and Collado (52) made a study of the color preferences of 1,004 Filipino children, mostly full bloods. They find that young Filipinos are quite similar to the young of other races in their color preferences, but that tribal or other nurtural influences change this early more or less native color preference. The scale for the total group of Filipino children shows a sequence running from most preferred to least preferred with some confusion in preference along the way, of red, green, blue, violet, orange, white, and yellow.

Mead (109) found Italians inferior to Americans but thought this was due to language handicap. Likewise Rigg (141), studying various foreign groups, as Germans, Jews, Italians, Bohemians, found them inferior to the American in performance, but concludes that this is due to language difficulty likewise. Smith (151) tested Irish, Germans, and Italians with a picture test, and concluded that the Irish and Germans are more romantic than the Italians, but that the latter are the most classical.

Thurstone (158) sought to get a scale for preferences by means of rating. He used 239 judges; the rank was first, Americans, then English, Scotch, etc. Lapiere (89), using an attitudes test, concluded that French are less prejudiced toward colored peoples than English. Frederick (33) and Orata (125) after investigations with attitudes tests found their subjects possess narrow prejudices upon which courses in college, as anthropology, sociology, make little impression. Young (175) found the situation improved after such college courses, by testing before and after the courses. Bogardus (11) obtained a sort of scale for measuring social distance for forty different races as determined by over 1,700 judges, all White Americans.

Several summaries and digests of experimental findings on racial differences have appeared in the last five years. We call the reader's attention to summaries of published results found in introductions to actual studies (*Cf.* Peterson and Lanier, Koch and Simmons, Klineberg, and Blackwood). In reviews such as Garth's (40 and 48) accounts of the results of testing for racial minds have appeared. Among the criticisms and evaluations of the testing we refer first to the trenchant article by Viteles (162) who surveys the results of the

studies of the Negro. He calls attention to the differences found between northern and southern Negroes, and to the influence of education as producing differences, to the lack of opportunity of the Negro, to the fact that Whites in some sections do not do so well as Negroes in other sections. Thompson (157) of Howard University makes a similar survey, and asks us to note that possibly segregation in our public schools causes much of the differences found between Whites and Negroes. Gregg (61) in interpreting the results of findings on Negroes insists that having a White experimenter is a handicap to the subject being tested. All these three students are of the opinion that education and selection are the causes of the differences found. In the opinion of the reviewer these three studies should be very carefully considered by all thoughtful readers.

Hsaio (71) has gathered into one compact system results of practically all studies of psychological experimentation on Chinese and Japanese. It makes a very valuable survey. He shows that Chinese and likewise Japanese, when proper consideration is made of language handicap, are about the equals of Americans in results obtained by the Stanford Binet. In other traits besides intelligence it may be different, as in rote memory where the Chinese are better. He emphasizes the importance of social status, the failure to adapt the tests to racial ways of thinking, and the neglect of variability.

In order to get some notion of the status of opinion held by representative psychologists we have listed in our bibliography several recent textbooks. We note that out of seven representative texts, all admonish caution in the matter of conclusions to be drawn from present experimental studies, though some appear to be of the opinion that racial differences in mental traits exist. Cf. Woodworth (171), Hunter (74), Freeman (34), Sandiford (145), Gates (53), Jordan (80), Ellis (27).

*Conclusion.* What then shall we say, after surveying the literature of the last five years, is the status of the racial difference hypothesis? It would appear that it is no nearer being established than it was five years ago. In fact many psychologists seem practically ready for another, the hypothesis of racial equality. But the problem in either case is the same as it was—to obtain fair samplings of the races in question, to control the factor of nurture, and to secure a testing device and technique fair to the races compared.

## BIBLIOGRAPHY AND REFERENCES

1. ABELL, T. M., National Differences and Preferences in Beliefs. *J. Comp. Psy.*, 1926, 6, 21-42.
2. ALLIER, R., *Le Non Civilisé et Nous: Différence irréductible ou Identité foncière? The Uncivilized and Ourselves; Is the difference irreducible or is there a basic identity?* Paris: Payot, 1927. Pp. 317.
3. ALLIER, R., *Mind of the Savage*. New York: Harcourt, Brace, 1929. Pp. 301.
4. ARLITT, A. H., and BUCKNER, S. H., A Study of Color preferences in White and Negro Three-Year-Olds. *Proc. Amer. Psych. Asso. Psych. Bull.*, 1927, 24, 190-191.
5. ARTHUR, G., The Relation of I.Q. to Position in Family. *J. Educ. Psy.*, 1926, 17, 541-545.
6. BARKSDALE, N. P., Psychic Instability and the Race Question. *Psyche*, 1926, 27, 86-94.
7. BLACKWOOD, B., A Study of Mental Testing in Relation to Anthropology. *Ment. Meas. Mono.*, 1927, No. 4. Pp. v+120.
8. BLONDELL, C., *La Mentalité Primitive*. Paris: Stock, 1926. Pp. 128.
9. BOAS, F., *Anthropology and Modern Life*. New York: Norton, 1928. Pp. 246.
10. BOAS, F., *Primitive Art*. Cambridge Press, 1927. Pp. 376.
11. BOGARDUS, E. S., *Immigration and Race Attitudes*. N. Y.: Heath, 1928. Pp. 268.
12. BOND, H. M., An Investigation of the Non-Intellectual Traits of a Group of Negro Adults. *J. Abn. and Soc. Psy.*, 1926, 21, 267-276.
13. BOODY, B. M., A Psychological Study of Immigrant Children at Ellis Island. *Ment. Meas. Monog.*, 1926, No. 3. Pp. 163.
14. BRANDELL, G., Svensk Folkpsyke och svensk skole. Swedish Mind and Swedish Education. *f. Arkiv Psykolo. Ped.*, 1927, 6, 1-19.
15. BRUNZEL, R. L., *The Pueblo Potter*. New York: Columbia Univ. Press, 1929. Pp. 134.
16. CARREON, M. L., *Philippine Studies in Mental Measurements*. Yonkers: World Book, 1926. Pp. xiv+175.
17. COLE, F. C., Character Education Among Primitive Peoples. *Relig. Educ.*, 1929, 24, 147-149.
18. CONS, G., *Racial Superiority*. London Book Center, 1927. Pp. 12.
19. CRAWLEY, E., *Studies of Savages and Sex*. New York: Dutton, 1929. Pp. 300.
20. DARSIE, M., The Mental Capacity of American-Born Japanese Children. *Comp. Psy. Mono.*, 1926, 3, No. 15. Pp. 89.
21. DAVENPORT, C. B., Do Races Differ in Mental Capacity? *Human Biol.*, 1929, 1, 1-7.
22. DAVIES, M., and HUGHES, A. G., An Investigation into Comparative Intelligence and Attainments of Jewish and Non-Jewish Children. *Brit. J. Psych.*, 1927, 18, 134-146.
23. DAVIS, R. A., Some Relations Between School Training and Intelligence Among Negroes. *J. of Ed. Psych.*, 1928, 19, 127-130.

24. DE NOVELLES, D., The Negro as Laborer. *Indus. Psy.*, 1926, 1, 91-93.
25. DODD, S. C., *A Statement Concerning a Group Intelligence Scale for International Use*. Princeton Univ. Store, 1926.
26. DOWNEY, J. E., Types of Dextrality Among North American Indians. *J. of Exp. Psych.*, 1927, 10, 478-488.
27. ELLIS, R. S., *The Psychology of Individual Differences*. N. Y.: Appleton. Pp. 533.
28. ESTABROOKS, G. H., The Enigma of Racial Intelligence. *J. Genetic Psy.*, 1928, 35, 137-139.
29. ESTABROOKS, G. H., That Question of Racial Inferiority. *Amer. Anthropol.*, 1928, 30, 470-475.
30. FIELDS, H., *The Influence of Immigration on American Culture*. New York Conference on Immigration Policy, 1929. P. 4.
31. FITZGERALD, J. A., and LUDEMAN, W. W., The Intelligence of Indian Children. *J. of Comp. Psych.*, 1926, 6, 317-328.
32. FLEURE, H. J., *The Character of the Human Skin in Their Relation to Questions of Race and Health*. Chadwick Trust, Oxford Univ. Press. Pp. 32.
33. FREDERICK, R., An Investigation into Some Social Attitudes of High School Pupils. *Sch. & Soc.*, 1927, 25, 410-412.
34. FREEMAN, F. N., *Mental Tests*. Boston: Houghton Mifflin, 1926. Pp. 503.
35. FROENIUS, L., Early African Culture as an Indication of Present Negro Potentialities. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 153-165.
36. GARRETSON, O. K., A Study of Causes of Retardation Among Mexican Children in a Small Public School System in Arizona. *J. Educ. Psy.*, 1928, 19, 31-40.
37. GARRETT, H. E., Jews and Others. Some Group Differences in Personality, Intelligence, and College Achievement. *Person. J.*, 1929, 7, 341-348.
38. GARTH, T. R., SERAFINI, T. J., and DUTTON, D., The Intelligence of Full-Blood Indians. *J. of App. Psych.*, 1925, 9, 382-389.
39. GARTH, T. R., and WHATLEY, C. A., The Intelligence of Southern Negro Children. *Sch. and Soc.*, 1925, 22, 501-504.
40. GARTH, T. R., Race and Psychology. *Scient. Mono.*, 1926, 23, 240-245.
41. GARTH, T. R., The Industrial Psychology of the Immigrant Mexican. *Indus. Psychol.*, 1926, 183-187.
42. GARTH, T. R., Mental Fatigue of Indians of Nomadic and Sedentary Tribes. *J. of App. Psych.*, 1926, 10, 437-452.
43. GARTH, T. R., The Community Ideas of Indians. *Psych. Rev.*, 1927, 34, 391-399.
44. GARTH, T. R. (assisted by SCHUELKE, N., and ARELL, W.), The Intelligence of Mixed-Blood Indians. *J. of App. Psy.*, 1927, 11, 268-275.
45. GARTH, T. R., A Comparison of Mental Abilities of Nomadic and Sedentary Indians on a Basis of Education. *Amer. Anthropol.*, 1927, 29, 206-213.
46. GARTH, T. R., and BARNARD, M. A., The Will-Temperament of Indians. *J. of App. Psy.*, 1927, 11, 512-518.
47. GARTH, T. R., and GARRETT, J. E., A Comparative Study of Indians in U. S. Indian Schools and in the Public or Common Schools. *Sch. and Soc.*, 1928, 28, 178-184.



48. GARTH, T. R., Racial Minds. *Psych.*, 1928, 18, 163-170.
49. GARTH, T. R., The Intelligence of Mexican School Children. *Sch. and Soc.*, 1928, 28, 791-794.
50. GARTH, T. R., and ISBELL, S. R., Musical Talent of Indians. *Music Supervisors' J.*, Feb., 1929.
51. GARTH, T. R. (assisted by SMITH, H. W., and ABELL, W.), The Intelligence and Achievement of Full-Blood Indians. *J. of App. Psy.*, 1928, 5, 511-516.
52. GARTH, T. R., and COLLADO, I. R., The Color Preferences of Filipino Children. *J. of Comp. Psy.*, 1929, 9, 397-404.
53. GATES, A. I., *Elementary Psychology*. N. Y.: Macmillan, 1927. Pp. 394.
54. GESCHE, I., The Color Preferences of One Thousand One Hundred and Fifty-Two Mexican Children. *J. of Comp. Psy.*, 7, 297-311.
55. GODENOUGH, F. L., Racial Differences in the Intelligence of School Children. *J. of Exp. Psy.*, 1926, 9, 388-397.
56. GRAHAM, V. T., The Intelligence of Italian and Jewish Children. *J. Abn. and Soc. Psy.*, 1926, 20, 371-376.
57. GRAHAM, V. T., *Intelligence Studies of Negro Children in Atlanta, Georgia*. Public Health Rep., 1926. 2757-2783, Reprint No. 1127, 1927.
58. GRAHAM, V. T., The Intelligence of Chinese Children in San Francisco. *J. of Comp. Psych.*, 1926, 6, 43-71.
59. GRANET, M., L'Expression de la pensee en chinois—Expression of Thought in Chinese. *J. de Psychol.*, 1928, 25, 617-656.
60. GRAY, C. T., and BINGHAM, C. W., A Comparison of Certain Phases of Musical Ability of Colored and White Public School Pupils. *J. of Ed. Psy.*, 1929, 20, 501-506.
61. GREGG, J. E., The Comparison of Races. *Sci. Mo.*, 1925, 20, 248-254.
62. HAMBLY, W. D., *Origins of Education Among Primitive Peoples*. N. Y.: Macmillan, 1926. Pp. 432.
63. HANKINS, F. H., *The Racial Basis of Civilization*. N. Y.: Knopf, 1926. Pp. 394. (A Critique of Nordic Doctrine.)
64. HAYES, F. C., Racial Groups in a University. *Scient. Mo.*, 1928, 26, 158-168.
65. HERSKOVITS, M. J., *The American Negro*. N. Y.: Knopf, 1928. Pp. 92.
66. HERSKOVITS, M. J., On the Relation Between Negro and White Mixture and Standing in Intelligence Tests. *Ped. Sem. and Jr. of Genet. Psy.*, 33, 30-42.
67. HERTZ, F., *Race and Civilization*. (Trans. by A. S. Levetus and W. Entz.) N. Y.: Macmillan, 1928. Pp. 328.
68. HIRSCH, N. D. M., A Study of Natio-Racial Mental Differences. *Genetic Psy. Mono.*, July, 1926.
69. HOBHOUSE, T. T., Das Verhältnis Zwischen Gruppen und Stammen bei den-primitivsten Völkern—Group and Tribe Relations Among the Most Primitive Peoples. *Zsch. f. Völkerpsychol. u. Soziol.*, 1929, 5, 172-192.
70. HOLMES, S. J., Will the Negro Survive in the North? *Scient. Mo.*, 1928, 27, 447-461.
71. HSIAO, H. H., The Mentality of the Chinese and Japanese. *J. App. Psych.*, 1929, 13, 19-31.
72. HUGHES, A. G., Jews and Gentiles. *Eug. Rev.*, 1928, 20, 89-94.

73. HUNTINGTON, E., *The Character of Races as Influenced by Physical Environment, Natural Selection, and Historical Development*. N. Y.: Scribners, 1926. Pp. 393.
74. HUNTER, W. S., *Human Behavior*. Univ. of Chicago Press, 1928. Pp. 353.
75. HURLOCK, E. B., Color Preferences of White and Negro Children. *J. of Comp. Psych.*, 1928, 7, 389-404.
76. IMADA, M., Color Preference of School Children. *Jap. J. of Psych.*, 1926, 1, 373-395.
77. JAMIESON, E., and SANDIFORD, P., The Mental Capacity of Southern Ontario Indians. *J. Educ. Psy.*, 1928, 19, 313-328, 536-551.
78. JOHNSON, G. B., The Negro and Musical Talent. *Southern Workman*, 1927, 51, 439-444.
79. JOHNSON, G. B., Double Meaning in the Popular Negro Blues. *J. Abn. & Soc. Psy.*, 1927, 36, 12-20.
80. JORDAN, A. M., *Educational Psychology*. N. Y.: Holt, 1928. Pp. 160.
81. KIRKPATRICK, C., Intelligence and Immigration. *Mental Meas. Mono.*, 1926, No. 2. Pp. 127.
82. KLINEBERG, O., An Experimental Study of Speed and Other Factors in "Racial" Differences. *Arch. of Psy.*, No. 93. Pp. 111.
83. KLINEBERG, O., Racial Differences in Speed and Accuracy. *J. of Abn. and Soc. Psy.*, 1928, 22, 273-277.
84. KOCH, H. L., and SIMMONS, R., A Study of the Test Performance of American, Mexican, and Negro Children. *Psych. Mono.*, 1926, No. 5. Pp. 116.
85. KOEHNE, K., Untersuchungen über Vorläufer und Quellen der Rassen-theorie des Grafen Gobineau—Investigation Concerning the Precursors and Sources of Count Gobineau's Theory of Races. *Arch. f. Rassen-und Gesellschaftsbiol.*, 1926, 18, 369-398.
86. KOU, H.-M., *L'esprit du peuple Chinois*. Paris: Stock, 1927. Pp. 182.
87. KUWATA, Y., Report on Comparative Study of Mentality of Formosan and Japanese Children. *Jap. J. Psy.*, 1926, 1, 46-68.
88. LAGERCRANTZ, E., Über Gestaltbildung in den Dialekten der Lappischen Sprache—On Gestalt Formation in Dialects of Lappish Language. *Zsch. f. Psychol.*, 1927, 104, 201-223.
89. LAPIERE, R. T., Race Prejudice: France and England. *Soc. Forces*, 1928, 7, 102-111.
90. LASKER, B., *Race Attitudes in Children*. Holt. Pp. 394.
91. LEHMAN, H. C., and WITTY, P. A., Some Compensatory Mechanisms of the Negro. *J. Abn. and Soc. Psy.*, 1928, 23, 28-37.
92. LÉVY-BRUHL, L., *How Natives Think*. London: Allen & Unwin, 1926. Pp. 392.
93. LÉVY-BRUHL, L., *The "Soul" of the Primitive*. N. Y.: Macmillan. Pp. 251.
94. LI, C., *The Formation of the Chinese People*. Cambridge: Harvard Univ. Press, 1928. Pp. 283.
95. LIMA, M., Racial Differences in Intelligence in Minnesota. *J. Abn. and Soc. Psy.*, 1928, 23, 68-71.
96. LOCKE, A., The Negro's Contribution to American Art and Literature. *Ann. Am. Acad. Pol. & Soc. Sci.*, 1928, 140, 234-247.

97. LOSSKY, N., The Primitive and the Civilised Mind. *J. Phil. Stud.*, 1926, 1, 145-158.
98. LUCKEY, B. M., Racial Differences in Mental Ability. *Sci. Mo.*, 1925, 20, 245-258.
99. LUQUET, G. H., *La Critique de la Raison Pratique Chez les Yagans de la Terre de Feu*. *J. de Psychol.*, 1927, 24, 189-202.
100. LUQUET, G. H., La Réalisme Intellectuel dans L'art Primitif. I. Figuration de l'invisible; II. Le Rendu Visible. *J. de Psychol.*, 1927, 24, 265-797, 888-927.
101. DE MADARIAGA, S., *Englishmen, Frenchmen, Spaniards: An Essay in Comparative Psychology*. London: Oxford Univ. Press, 1928. Pp. 256.
102. MALINOWSKI, B., *Myths in Primitive Psychology*. N. Y.: Norton. Pp. 94.
103. MALINOWSKI, B., *Sex and Repression in Savage Society*. London: Kegan Paul, 1926.
104. MANUAL, H. T., and WRIGHT, CARRIE E., The Language Difficulty of Mexican Children. *Ped. Sem. and J. of Gen. Psy.*, 1929, 36, 458-466.
105. MARSUMOTO, M., Psychological Aspect of the Progress of Formative Art. *Jap. J. Psychol.*, 1926, 1, 1-22.
106. MASSON-OURSSEL, P., Les Techniques Orientales de la Concentration—Oriental Techniques of Concentration. *J. de Psychol.*, 1927, 24, 87-92.
107. MCCARTNEY, J. L., Psychoanalysis and Chinese Characters. *China J.*, 1927, 6, 145-150.
108. MEAD, M., *Coming of Age in Samoa*. N. Y.: Morrow, 1928. Pp. 297.
109. MEAD, M., Group Intelligence Tests and Linguistic Disability Among Italian Children. *Sch. & Soc.*, 1927, 25, 465-488.
110. MEAD, M., The Methodology of Racial Testing: Its Significance for Sociology. *Amer. J. Sociol.*, 1926, 31, 657-667.
111. MERCER, F. M., The Color Preference of One Thousand and Six Negroes. *J. of Comp. Psych.*, 1925, 5, 109-146.
112. METTESSEL, M., *Phonophotography in Folk Music: American Negro Songs in New Notation*. Chapel Hill: Univ. North Carolina Press, 1928. Pp. x+181.
113. MOTON, R. R., *What the Negro Thinks*. N. Y.: 1929. Pp. 274.
114. MURCHISON, C., and BURFIELD, H., Types of Crime and Intelligence Among Negro Criminals. *Ped. Sem.*, 1925, 32, 239-247.
115. MURCHISON, C., Intelligence of Foreign-Born Criminal Recidivists. *Ped. Sem.*, 1925, 32, 235-238.
116. MURCHISON, C., Mental Test and Other Concomitants of Some Negro Women Criminals. *Ped. Sem.*, 1926, 33, 527-530.
117. MURDOCK, K. M., Racial Differences Found in Two American Cities. *Indus. Psy.*, 1926, 1, 99-104.
118. MURDOCK, K. M., A Study of Differences Found Between Races in Intellect and in Morality. *Sch. and Soc.*, 1925, 22, 628-632, 659-664.
119. MURPHY, J., *Primitive Man—His Essential Quest*. London: Oxford Univ. Press, 1927. Pp. 341.
120. NATHANSON, Y., The Musical Ability of the Negro. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 186-190.
121. NILSSON, M. P., *La Computation du Temps Chez les Peuples Primitifs et*

- L'origine du Calendrier—Computation of Time Among Primitive Peoples and the Origin of the Calendar. *Scientia*, 1926, 39, 393-400.
122. NUTTING, C. C., Lessons From Fiji. *Scient. Mo.*, 1926, 23, 19-32.
  123. NUTTING, C. C., The Mentality of "Inferior" Races of Man. *Sch. & Soc.*, 1926, 24.
  124. ODUM, H., *Rainbow Around My Shoulder*. Bobbs Merrill, 1928.
  125. ORATA, P. T., Race Prejudice. *Welfare Mag.*, 1927, 18, 766-775.
  126. PARK, R. E., The Bases of Race Prejudice. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 11-21.
  127. PASCHAL, F. C., and SULLIVAN, L. R., Racial Influences in the Mental and Physical Development of Mexican Children. *Comp. Psy. Mono.*, 1925, 3, No. 14. Pp. 1-76.
  128. PETERSON, J., LANIER, L. H., and WALKER, H. M., Comparison of White and Negro Children in Certain Ingenuity Tests. *J. of Comp. Psy.*, 1925, 5, 271-284.
  129. PETERSON, J., and LANIER, L. H., Studies in the Comparative Abilities of Whites and Negroes. *Ment. Meas. Mono.*, 1929, No. 5. Pp. vi+156.
  130. PETERSON, J., Methods of Investigating Comparative Abilities in Races. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 178-185.
  131. PINTNER, R., Non-Language Tests in Foreign Countries. *Sch. & Soc.*, 1927, 26, 375-376.
  132. PORTEUS, S. D., and BARCOCK, M. E., *Temperament and Race*. Boston: Badger, 1926. Pp. 350.
  133. PORTEUS, S. D., The Social Psychology of the Australian Aboriginal. *J. App. Psy.*, 1929, 13, 131-144.
  134. PRICE, J. ST. C., The Intelligence of Negro College Freshmen. *Sch. & Soc.*, 1929, 749-754.
  135. RADIN, P., *Crashing Thunder: The Autobiography of an American Indian*. N. Y.: Appleton, 1926. Pp. 202.
  136. RADIN, P., *Primitive as Philosopher*. N. Y.: Appleton, 1927. Pp. 402.
  137. RATTRAY, R. S., and BENNETT, G. T., *ET AL.*, *Religion and Arts in Ashanti*. Oxford Clarendon Press, 1927. Pp. xviii+414.
  138. RENAUD, E. B., Prehistoric Female Figurines from America and the Old World. *Sci. Mo.*, 1929, 28, 507-512.
  139. REUTER, E. B., *The American Race Problem*. N. Y.: Crowell, 1927. Pp. 448.
  140. REUTER, E. G., The Personality of Mixed-Bloods. *Publ. Am. Sociol. Soc.*, 1927, 22, 52-60.
  141. RIGG, M., Some Further Data on the Language Handicap. *J. Ed. Psy.*, 1928, 19, 252-256.
  142. RIVERS, W. H. R., *Psychology and Ethnology*. N. Y.: Harcourt Brace, 1926. Pp. 325.
  143. ROBACK, A. A., Have the Jews an Inferiority Complex? *B'nai Brith Mag.*, 1925, 39, 339 ff.
  144. ROBACK, A. A., *Jewish Influence in Modern Thought*. Cambridge: Sci. Art, 1929. Pp. 506.
  145. SANDIFORD, P., *Educational Psychology*. N. Y.: Longmans Green, 1929. Pp. 406.



146. SANDIFORD, P., and KERR, R., Intelligence of Chinese and Japanese Children. *J. of Ed. Psych.*, 1926, 17, 361-367.
147. SCOTT, A. W., Comparative Study of Responses of Children of Different Nationalities and Environments on Intelligence and Achievement Tests. *Teachers Coll. Cont. to Educ.*, No. 367, 1929.
148. SEASHORE, C. E., Three New Approaches to the Study of Negro Music. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 191-192.
149. SENGUPTA, N. N., The Field of Race Psychology. *Indian J. of Psy.*, 1928, 3, 59-68.
150. SIAGE, D. W., and HOLDEN, T. S., Mental Capacity of Sixth Grade Jewish and Italian Children. *Sch. & Soc.*, 1926, 22, 564-568.
151. SMITH, M. E. W., Racial Tastes. *Indus. Psy.*, 1926, 1, 118-120.
152. STADELMANN, H., Das Chinesische Ratheel—The Chinese Riddle. *Psychiat. Neur. Woch.*, 1927, No. 12, 154.
153. SUNNE, D., Comparisons of White and Negro Children by the Terman and Yerkes-Bridges Revisions of the Binet Tests. *J. Comp. Psy.*, 1925, 5, 209-219.
154. SUNNE, D., Personality Tests: White and Negro Adolescents. *J. of App. Psy.*, 1925, 9, 265-280.
155. TANAKA, S., A Study of Moral Evaluation by Boys and Girls. *Jap. J. Psych.*, 1926, 1, 81-99.
156. TERRY, R. J., The American Negro. *Science*, 1929, 69, 337-441.
157. THOMPSON, C. H., The Educational Achievement of Negro Children. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 193-208.
158. THURSTONE, L. L., An Experimental Study of Nationality Preferences. *J. Gen. Psych.*, 1928, 1, 405-425.
159. TODD, T. WINGATE, Entrenched Negro Physical Features. *Human Bio.*, 1929, 1, 57-69.
160. TRAVAGLINO, Die Konstitutionsfrage bei Javanischen Rasse—Constitution Problem in the Javanese Race. *Zsch. f. d. ges. Neur. u. Psychiat.*, 1927, 110, 437-492.
161. TROW, W. C., and PU, A. S. T., Self-Ratings of Chinese. *Sch. & Soc.*, 26, 213-216.
162. VITELES, M. S., The Mental Status of the Negro. *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1928, 140, 166-177.
163. WALLIS, W. D., The Prejudices of Man. *Amer. J. Sociol.*, 1929, 34, 804-821.
164. WALLIS, W. D., Race and Culture. *Sci. Mo.*, 1926, 23, 313-321.
165. WALLON, H., La Mentalite Primitive et celle de L'enfant—Primitive Mentality and that of the Child. *Rev. Phil.*, 1928, 106, 82-105.
166. WANG, S. L., A Demonstration of the Language Difficulty Involved in Comparing Racial Groups by Means of Verbal Intelligence Tests. *J. of App. Psy.*, 1926, 10, 102-106.
167. WEIDENREICH, F., *Rasse und Körperbau*. Berlin: Springer, 1927. Pp. 187.
168. WEN, I. C., China Through American Eyes—Psychologists. *Chinese Student Mo.*, 1925, 21, 47-53.
169. WITTY, P. A., and DECKER, A. I., A Comparative Study of the Educational Attainments of Negro and White Children. *J. of Ed. Psych.*, 1927, 18, 497-500.

170. WOLBERG, D., *Zur Differentiellen Psychologie der Juden. Experimentelle Untersuchungen und Schülern und Studenten.* 1927. Pp. 32.
171. WOODWORTH, R. S., *Psychology.* N. Y.: Holt, 1929. Pp. 590.
172. WOOD, M. M., Mental Test Findings with Armenian, Turkish, Greek and Bulgarian Subjects. *J. of App. Psy.*, 1929, 13, 266-273.
173. YODER, D., Present Status of the Question of Racial Differences. *J. Ed. Psych.*, 1928, 19, 463-470.
174. YOSHIOKA, J. G., A Study of Bilingualism. *J. Gen. Psych.*, 1929, 3, 473-479.
175. YOUNG, D., Some Effects of a Course in American Race Problems on the Race Prejudice. *J. of Abn. & Soc. Psy.*, 1927, 22, 235-242.
176. YOUNG, P. C., Intelligence and Suggestibility in Whites and Negroes. *J. of Comp. Psy.*, 1929, 9, 339-359.

## THEORY AND MEASUREMENT OF ATTITUDES AND OPINIONS

BY READ BAIN

*Miami University*

One of the most important (and confused) subjects in the interlocking and overlapping fields of sociology and social psychology is the category of motivation. It is apparent that human movements are possible only when appropriate action-patterns exist and that these patterns must be either inherited or acquired. It is also apparent that the functioning of both human and non-human animals is largely motivated by action-patterns that seem to be products of germinal development. These patterns are present at birth or soon after, relatively stable and unmodifiable, common to the species, usually adaptive and largely unlearned. If they are relatively simple, like grasping, knee-jerking, winking, they are "reflexes"; if they are more complex like crying, suckling-swallowing, assimilating-excreting, manipulating, they are "instincts." Just how complex such responses must be to be "instincts" is undetermined and perhaps indeterminable. The safest procedure, probably, is to call them instinctive, innate, native, germinal, and let it go at that.

On the other hand, it is equally obvious that most human cultural behavior is motivated by action-patterns acquired through social conditioning. It is his greater capacity for building new action-patterns that distinguishes the human animal from the non-human animal. Following Thorndike, it is customary to describe the innate type of behavior as *original* and the second type as *acquired*. Thus, while vocalizing is an original trait of man, speaking a language is an acquired trait; hunger, putting-objects-in-mouth-and-swallowing, is natural, but seeking specific foods is a culture-trait; sex activity is native, but particular love-making and marriage-family complexes are acquired action-patterns. The most significant *human* acquisitions are the action-patterns we call language, vocal symbolization, thinking, "consciousness." These habits, like all other action-patterns, are neuromuscular mechanisms. Thinking is acting; "consciousness" is movement of specific parts of the organism.

Since the discovery of the "conditioned reflex," it has been found that stimuli capable of activating these neuromuscular mechanisms, whether innate or acquired, are very numerous and very variable. Under appropriate conditions, almost any stimulus may be substituted for the stimulus originally adequate to activate any given action-pattern. Then a substitute for the substitute stimulus may be supplied, and so on almost indefinitely. While the functional motor-mechanisms, innate or acquired, are relatively stable, as in the Watsonian infantile fear, love, and rage responses (117), many quite diverse stimuli may be integrated with these specific responses. The result is a new total stimulus-response action-pattern which is partly original, but which in most *human* behavior, is largely the result of experiential conditioning in cultural situations.

Hence, the attempt to ascribe human behavior to specific "instincts" has failed. Modern sociologists and social psychologists are studying acquired and conditioned behavior intensively in the hope of achieving some scientific understanding of human, as contrasted to human-animal, motivation. This point of view is expressed in the proposition that "human behavior is cultural behavior." The specific-instinct explanation of much animal behavior is demonstrably false and some observers even allege traces of cultural behavior among animals. Certainly it is true that much adjustment-behavior of animals is conditioned, learned, or acquired, whether it be cultural or not in the sense of being transmitted by some process of symbolical communication or training in group-patterned responses. In any case, it is clear that no adequate understanding of human behavior is possible on the old specific instinct hypothesis. The problem of human motivation is the problem of acquired responses. We may grant an "instinctive" substrate for all such behavior, but scientific explanation must be made on the level of the substitute-stimulus integration. In a given human adjustment it is practically impossible to unscramble the innate action-patterns from the innate conditioned ones. A conditioned action-pattern is as much a "drive," is as dynamic a motivation, as a raw instinct. When the conditioned integration is once achieved, it responds automatically upon the presentation of the appropriate stimulus. It is as much an integral and organic part of the functional organism as if it were an original, innate stimulus-response pattern. This is particularly true of conditioned response patterns of the unstriped muscles (Watson, 50, 51), but it is also true of all so-called voluntary habits. In language habits, this process is especially rich and varied and is of especial interest to



students of human behavior, since so much of our actual social adjustment is mediated by language habits.

The purpose of this paper is to present a bibliography of some of the material that has appeared since 1925 on the general subject of acquired motivation-patterns. A few basic studies prior to 1925 are included. A rough classification has been attempted. This serves the two-fold purpose of giving some guidance to the student and of simplifying the short discussion that follows. Needless to say, the bibliography is incomplete, but the compiler believes it will serve as a fairly adequate introduction to the subject. He urges the reader to place but little confidence in the too brief analysis that follows, but rather to consult the literature.

The bibliography is limited chiefly to the writings of sociologists and social psychologists. A great deal of similar or allied material will be found under appropriate headings in the *Psychological Index* since 1925. The compilation is mainly concerned with the theory, observation and measurement of "attitudes and opinions" as used by sociologists and social psychologists. No one realizes more vividly than the compiler himself that these are very ill-defined terms, but he believes that they do refer in a general way to types of acquired action-patterns that are definitely concerned with human motivation. Certainly, "attitude" is not more vague and ill-defined than "trait," as Prince (38) and G. W. Allport (2) have shown. While it must be confessed that most writers use such terms as attitude, trait, opinion, wish, interest, disposition, desire, bias, preference, prejudice, will, sentiment, motive, objective, goal, idea, ideal, emotion, and even instinct and reflex, loosely, indefinitely, and often interchangeably, yet it must also be admitted that there is a core of common meaning in all such usages. These, and other similar terms, refer to acquired and conditioned action-patterns that motivate human social behavior. If this is kept clearly in mind, much of the terminological discussion will appear as "sound and fury signifying nothing" more than a mere symptom of the "disease of language." Men who have waged epic verbal battles often discover later that they were talking about the same thing. Common usage is necessary, to be sure, if a valid scientific vocabulary is to be won, and perhaps this can be achieved only by bloodless verbal combat. But intensive research into the repetitive uniformities of acquired motivation-patterns will do more toward clarifying and standardizing terminology than will the making of many violent verbal assaults and lengthy language-defenses. The literature listed below shows that the technique and theory of such

research is already well advanced. The various investigators are studying the same kind of data, whatever they call it, viz.: socially conditioned patterns of motivation. It should be pointed out that the more careful writers attempt to give clear and unmistakable meanings to the terms they use. Such procedure will eventually settle the terminology difficulty.

Symonds (45, 46) has mentioned seven common meanings of the term attitude: (1) great organic drives, purposes, motives; (2) muscular adjustment; (3) generalized conduct; (4) neural set or readiness to adjust; (5) emotional responses; (6) feelings; (7) verbal accepting or rejecting responses. The "tendency to act," positive or negative, of Thomas (48) and his followers, Park and Burgess (32), Faris (18, 19), Bogardus (8), House (24), Lundberg (70), *et al.*, seems to be quite similar to (4), above. This is perhaps the most prevalent use of attitude among sociologists, although we should add the preparatory movement or partial adjustment idea of Bernard (5), the relatively stable overt status-getting response of Bain (3), and the trenchant criticism of all the above by Markey (28) with his conclusion that attitudes are behavior integrations associated with signs and symbols of probable behavior.

Most attempts to study attitudes have been by way of getting verbal responses through questionnaires, rating of verbal symbols in gradations of liking-disliking, and asking people for preferences, desires or interests. This material is roughly classified under section V. The assumption seems to be that people really do, or will do, what they say they have done, or will do. The psychoanalytic school has shown the falsity of this assumption. (It should be noted in passing that there is a rich psychoanalytic and psychiatric literature on the general subject of motivation which is not touched upon in this compilation. A special bibliographic review of psychiatric attitude theory and study should be available.) Some students have attempted to determine the degree of correlation between verbal responses and actual behavior, *e.g.*, Zimmerman (119), May and Hartshorne (99, 100), and Terman (110). Stouffer (79a) has found a correlation of .96 in the judgments of attitudes from case studies (unpublished as yet). Several persons read the same case studies and listed the attitudes they thought were therein exhibited with the high degree of agreement indicated above. If this work stands the test of verification, it will be highly significant. Practically all investigators, when pressed, will admit the probable discrepancy between verbal and actual behavior, especially if the verbal "attitudes" are on

tabooed subjects as many of them are. An enormous amount of time and labor have been practically wasted as a result of this naïve assumption that verbal statements are highly correlated with adjustment behavior. That there is often high correlation must be admitted but it must be scientifically (quantitatively) determined just what this correlation is if the resultant generalizations are to have any scientific (predictive) value. Symonds (45) and Bain (3) have argued that verbal "attitudes" are relatively unimportant, but it should be pointed out that for some problems the verbal response is what is desired. However, in most cases, the assumption is that the verbal response is indicative of actual behavior, as buying, voting, church going, choosing occupations, etc. This may be so, but it must be determined, not assumed, before the study has any great value. Practically all writers explicitly or implicitly admit a distinction between "attitudes," however used, and "verbal attitudes," or opinions.

Russell (41) has approached the problem of motivation by way of desire and feeling (by which he seems to mean about the same as attitude), while Holt (23) has emphasized the structural nature of the "wish." These two approaches seem to be the rationale back of the two types of attitude studies I have classified as Overt (III) and Verbal (V). The only way we can tell how another person "feels" is to observe his behavior and assume that he "feels" that way, or "desires" those responses, or else to ask him how he "feels." The one approach results in objective analysis, the other in subjective. Faris (18, 19), following Thomas (47, 48), holds that "the attitude" is the result, largely, of crisis situations, while the "wish" is the precursor of action. Thus Bernard's attitude (5) is Faris' wish, while Holt's wish is more nearly like Semon's "engram" or Pareto's "residue." Faris insists upon the necessity for studying the "subjective aspect of culture" (17) by imaginative in-living, *Einfühlung*, somewhat after the model of Cooley's "sympathetic insight" or Weber's "*verständliche Soziologie*" and "*Nacherlebbarkeit*." Faris admits a probable structural basis of attitudes, but insists that the adjustment aspect of attitude is the datum of social psychology and as such is much more important than the hypothetical engram (18). With this, most would agree heartily.

The *Gestaltists* make frequent use of "attitude," yet the closest Köhler (27) comes to a definition is: "A change of attitude involves a definite physiological stress exerted upon a sensory field by processes originating in other parts of the nervous system" (p. 184).

Attitudes are directed toward or away from objects (pp. 323 ff). He speaks of analytical, emotional, indifferent, dynamical, and introspective attitudes. It is difficult for Köhler to understand how a "directed attitude" depends upon a definite physiological situation of the organism as is the case in hunger or sex, but he thinks it does.

Space precludes further theoretical discussion. The reader is referred to Section I, and especially to the bibliographic articles of K. Young (56), Bernard (5), House (24, 25), Roback (39), Faris (20), G. W. and F. H. Allport (58), G. W. Allport (2), Lundberg (70). The whole subject of motivation is ably presented and criticized by Sorokin (44).

Practically all investigators agree that human motivation is largely in the realm of habit, even though these habits may be merely conditioned original action-patterns. However, the native part of the integration is important only as a substrate upon which the superstructure of habitudinal attitudes or traits may be built: Dewey (15), Bernard (5), G. W. Allport (1, 2), Prince (38), Hart (22), Watson (51), *et al.* The significant thing is that there is considerable stability and cultural uniformity in these adjustment responses. This leads to the attempt to measure. All measurement, and hence all exact science, depends upon relative stability and uniformity in the behavior of defined units. All units, however carefully defined, are variables. The problem of measurement is to find sufficient stability and uniformity among reciprocal variables regarded as (hypothetical) identical units so that mathematical statements (or generalizations) of this uniformity may be made. Such generalizations constitute scientific description and explanation. Phenomena are "explained" scientifically when their uniformities are mathematically determined. Then prediction is possible. Thus, all accurate observation that does not result in generalizations of prediction is merely preliminary to scientific explanation. Hence, a great deal of what passes for "scientific fact" and "scientific knowledge," by this criterion would be merely hypothesis.

It has proved to be a very fascinating, though difficult, mathematical problem to define the units and devise the techniques of measuring such complex variables as the types of behavior herein discussed. But it has not been insuperable. The references in Section II describe some of the more successful efforts. The techniques are in general the same as those long ago worked out by the biometric school and the "intelligence" testers, but some new corre-



lation formulas have been devised and the methods of multiple and partial correlation are being found increasingly necessary.

As indicated above, the two possible approaches are to study (1) overt behavior and (2) verbal responses. It is obvious that the latter is the easier. The questionnaire device is ample proof. There are two intermediate types of study between overt and verbal responses. One is to ask the subject to check from a list of specific acts those he has performed within a definite time. This is exemplified by the play studies of Lehman (210) and of Lehman and Witty (104, 105, 118). The other is the case study method: Shaw (158), Bogardus (126), Burgess (132, 133), Healy (139, 140), Kreuger (143, 144), *Social Forces* (159), *et al.*, found in Section IV. In the first type, if the time interval is not too great, and the subjects are honest, and the acts accurately defined, actual adjustment behavior may be determined. In the second method, the verbal responses may be evaluated by the skilled interviewer, and the statements verified later by actual factual investigation. But such materials need to be treated statistically before scientific generalizations can be made, as Shaw (158) and Bogardus (60) have shown. Bain (122) and Perry (34) and others have criticized life-history, case study and questionnaire methodology.

The attempts to measure opinions, or verbal attitudes, range all the way from the simple summation of judgments of true and false statements to very elaborate attempts to construct a rational scale of equal steps. Thurstone has developed the latter method to its highest point in a series of brilliant papers (81-84). His is really an elaboration and logical improvement on the earlier rank-order scales of F. H. Allport (168), Rice (109), and others. Hartshorne and May (64) constructed a scale of equal steps in terms of standard deviation on a normal curve. The fault of this method lies in the assumption that the opinions comprise a normal distribution as K. Young (54, 56) has shown. Thurstone's method, by several ingenious devices, succeeds in establishing a statistically valid scale of equal steps. But it is very laborious and costly. In one study (84) he had 200 persons sort Allport's questions and states that there should be 500 or 600! It appears fairly easy to construct a reliable test of verbal opinions but the problem of validation is more difficult. This commonly rests upon the judgment of raters in the last analysis, and they seldom agree closely, as Kornhauser (66, 67, 68) has shown. However, Thurstone's method seems to be the best so far devised.

G. W. Allport has suggested a method of validation that dispenses with raters (78).

The social distance studies of Bogardus (7, 9, 11, 60, 173-177, 245), Poole (36, 37), Shideler (79), Woolston (234), *et al.*, are merely variations of the rating method, though more informative than mere likes and dislikes. The extroversion-introversion tests depend upon self-rating, perhaps checked by interviews, as with Hewlett and Lester (65), or by taking the extreme statements as judged by raters (Conklin, 62).

In addition to the discussions of theory and technique of measurement by Thurstone, Rice, F. H. Allport, Hartshorne and May, mentioned above, one should consult the bibliographic reviews of measurement compiled by F. H. and G. W. Allport (58), Manson (71, 72), May and Hartshorne (73, 74), G. B. Watson (86), and the books by May and Hartshorne (99, 100), Rice (76, 109), Lundberg (70), Meltzer (75), and Terman (110), and the very valuable theoretical discussion by Kirkpatrick (65a). Good discussions of the shortcomings and dangers of statistical analysis are those of Cooley (135, 136), Lehman and Witty (69), and Burgess (132).

May and Hartshorne (74), in the best discussion of tests, both as to classification and methodology, point out that tests seldom duplicate life situations. In an attempt to approximate this some studies have been made of actual overt adjustment behavior under controlled or uncontrolled situations. J. B. Watson (51, 117) was one of the pioneers in this field. Voelker (115) in an admirable study of dishonesty was another. May and Hartshorne in the studies mentioned have perhaps done the most notable work in this field. Blanchard and Paynter (242-244), Carmichael (93), Chapin (95), M. C. Jones (103), Lundberg (106, 107), D. S. Thomas *et al.* (111), Zimmerman (119), Rice (109), and others cited in Section III should be consulted. It is interesting to note that many of these studies are of the adjustment behavior of infants whose verbal responses are not highly developed.

It is also noteworthy that many of the studies in Section VI have approached the question of changing attitudes by observing actual behavior, *e.g.*, Blanchard and Paynter (242-244), Hershey (248), M. C. Jones (249), Watson (256), Bogardus (245), Zeleny (261), Marston (251), Pearson (253), Tanquist (255). Verbal attitudes remain quite constant according to D. Young (259), Willey and Rice (258), and Rice (222). When verbal stereotypes are highly developed, they may remain intact, even after overt adjustment atti-

tudes have changed. A nice theoretical explanation of this is offered by Pitkin (153, pp. 316-333) by pointing out the differing numerical magnitudes of cortical and muscular patterns. This is perhaps the structural basis of many "personality conflicts."

The materials in Sections III and VI are somewhat similar in that overt behavior tends to be the subject matter of both. Sections IV and V are also similar, both being based largely on verbal response. However, case study (IV) is somewhat intermediate because the verbal reports are "interpreted" more or less objectively by the investigator and also often checked by actual non-verbal behavior. A variety of case study dealing with the group or small institution, as advocated by Cooley (135, 136) and Bogardus (127), is illustrated by Angell (120), McClenahan (150), Lynd (147), Zorbaugh (166), and Rhyne (154). This method is really a combination of the methods of verbal response, *Einfühlung*, statistical tabulation and observation of overt behavior. It promises to increase in importance. Most of the life-history and case-study research, however, deals with individuals, usually maladjusted. This work is obviously more valuable for social art than for the science of sociology. Such generalizations as are valid are applicable only to relatively small classes of people. When inferences from such studies are made regarding the behavior of normally adjusted people, the results are likely to be quite dubious.

Most of the studies in Section V are mere tabulations of verbal responses, usually likes and dislikes, true and false, or preferences, though some of them are quite elaborately treated statistically. The fundamental work of F. H. Allport, Thurstone and Rice mentioned above is largely based on verbal responses, although Rice is concerned with more overt behavior in his studies of voting. One might argue that voting is really verbal whether one does it on a party ballot or on a rating scale. Yet it is one thing to study the election returns and quite another to ask people why they voted as they did or how they would vote for so and so and such and such. Political voting is much more nearly overt adjustment behavior than is "voting" on a classroom questionnaire.

While no comprehensive logical classification of the subject-matter covered by the attitude studies listed below is attempted here, certain types may be pointed out. Space prohibits placing all the studies under appropriate headings even if that were logically possible. I have merely tried to indicate certain types of attitudes, traits, or interests that have been studied by several investigators. Definite

subdivisions under some of the headings could be made on the basis of studies already completed, as in "race and national," "vocational," "delinquency," etc., and eventually this will be necessary as the number and variety of such studies increase.

1. *Racial and national attitudes*: Arai (121), Lasker (145), D. Young (259), P. V. Young (239), K. Young (57), Garrett (188), Bogardus (126, 128, 173, 177), Ravitch (218), Gibson (189), Lapiere (208), Woolston (234), Sunne (227), Reinhardt (219), Wu (235), W. I. Thomas (48), G. B. Johnson (102), Lehman and Witty (104).

2. *Play and recreation attitudes*: Lehman and Witty (105, 118), Verry (114), Alderson (167), Hurd (200), Lehman (210), Stoke and Cline (224).

3. *Attitudes of family and children*: Blanchard and Paynter (91, 242-244), L. G. Brown (131), M. C. Jones (103, 249), Verry (113), Walker (116), Burgess (133), McChristie (148, 149), Nimkoff (151, 215), Sayles (155, 156), M. E. Watson (163), J. B. Watson and Raynor (117), Wembridge (164), Fenton (185), Gross (247), Rice (221), Wickman (232), Pearson (253), Zeleny (261).

4. *Vocational interests and attitudes*: W. A. Anderson (170), K. M. B. Bridges (92), Brotemarkle (180), Cowdery (183), Freyd (186), Pickett (216), Remmers (220), Lind (146), Hubbard (197), Strong (225, 226), Wilkinson (233), Zimmerman (119).

5. *Political attitudes*: G. W. Allport (169), F. H. Allport and Hartman (168), Lasswell (250), Lundberg (106, 107), Moore (213), Willey and Rice (258), Rice (109).

6. *Religious attitudes*: Bain (171), Calkins (134), Sheldon (42), J. R. Young (238), Zimmerman and C. A. Anderson (89).

7. *Extroversion-introversion*: Conklin (62, 182), Guthrie (191), Heidbreder (194, 195, 196), Hewlett and Lester (65), Jasper (202), Marston (251).

8. *Delinquency attitudes*: Balch (124), Brietz (130), Fisher (137), Guilford (190), Haggerty (192), Healy (139), Healy and Bronner (140), Sayles (155, 156), Shaw (157), Sullenger (160), TeWater (162), Wembridge (164), P. V. and E. F. Young (165).

9. *Honesty and right and wrong attitudes*: Brogan (178), Carmichael (93), Chambers (94), Hartshorne and May (98, 99, 100), V. Jones (204), Terman (110), Voelker (115), G. B. Watson (231).

10. *Composite, i.e., attitudes on various questions all confined in the same schedule, e.g., Brogan (178), Davis (184), Harper (63),*



Hart (193), Jordan (205), Katz (206), Meltzer (75), Neumann (214), Sturges (254), Wyman (236), Zeleny (240), *et al.*

Many other interesting studies of the attitudes involved in specific personality traits such as G. W. Allport on ascendance-submission (59), J. W. Bridges on college emotional instability (61), Hawthorn, rural-urban personality (101), Morris, mendicancy (108), Hershey, periodic emotional changes (248), and studies of attitudes involved in certain typical social relations such as Binnewies on community spirit (90), Chapin on volume of social stimuli (95), Clark on student interviews (96), Vance on cotton culture (112), E. F. Guthrie on personality crises (138), Tallman on college self-government (161), G. V. Brown on economic self-government (246), and others, should be mentioned.

In conclusion, we may admit that the measurement of what G. B. Watson calls "the less tangible qualities" (85) has shown remarkable development in the last ten years, and at the same time, insist that much more remains to be done, both in theory and practice. Many of the present scales are quite reliable but how valid they are is a matter of doubt. Most of them have been validated by the rating method and Kornhauser's study of the fallibility of raters (66, 67, 68) merely confirms common experience. Thurstone's method of validation by rating, though costly and laborious, is the best one so far devised. Kornhauser's suggestion of trained raters might simplify the procedure somewhat and G. W. Allport's suggestion for dispensing with raters altogether (78) may prove feasible. Mathews (212) has shown that the order of the questions on a schedule produces a marked effect upon the nature of the replies, in some cases as high as 7 per cent. It is probable that the personality of investigator, the artificial social situation of the class-room, the time of day, condition of the weather, indifference or enthusiasm of subjects, imminence of exciting events such as football games, junior proms, etc., would also affect the results of verbal response attitude studies.

I think it is safe to say that the bulk of the work so far done has little value except to show how not to do it, to define difficulties, and thus indirectly to advance theory and technique. Most of the studies are chiefly fallible, I think, because they do not duplicate life situations (*Cf.* May and Hartshorne (74)). The remedy would seem to be this: Attitude studies should be based upon actual adjustment behavior (Zimmerman *et al.*, 88) and correlations of verbal and overt behavior. If significant correlations are found, then, for certain types of attitudes characteristic of certain classes of people, the verbal atti-

tudes may have predictive value for actual adjustment behavior. Even if we find high uniformity in the verbal responses of a group at different times, or of different groups at the same time, we have no surety that a similar uniformity will be found between their verbal and adjustment behavior, especially when tabooed or ill-organized behavior is the subject of investigation. "Attitudes" that do not motivate adjustment (or maladjustment) have little significance for human beings.

## BIBLIOGRAPHY

## SECTION I: ATTITUDE THEORY

1. ALLPORT, G. W., The Study of the Undivided Personality. *J. of Abnor. and Soc. Psychol.*, 1924, 19, 132-141.
2. ALLPORT, G. W., Concepts of Trait and Personality. *Psychol. Bull.*, 1927, 24, 284-293. (Bib.)
3. BAIN, READ, An Attitude on Attitude Research. *Amer. J. of Sociol.*, 1928, 33, 940-957.
4. BAMFORD, E. F., *A Study of Social Attitudes*. Doctoral dissertation, 1928, Univ. of So. Calif., Los Angeles, Calif.
5. BERNARD, L. L., *Introduction to Social Psychology*. N. Y.: Holt, 1926. Pp. 246-261. (Bib., pp. 613-615.)
6. BOGARDUS, E. S., Personality and Occupational Attitudes. *Sociol. and Soc. Res.*, 1927, 12, 73-79.
7. BOGARDUS, E. S., Social Distances Between Groups. *J. Ap. Sociol.*, 1926, 10, 473-479.
8. BOGARDUS, E. S., *Fundamentals of Social Psychology*. N. Y.: Century, 1924, chapter V.
9. BOGARDUS, E. S., Occupational Distance. *Sociol. and Soc. Res.*, 1928, 13, 73-81.
10. BOGARDUS, E. S., Social Distance in the City. *Proc. Amer. Sociol. Soc.*, 1926, 20, 40-46.
11. BOGARDUS, E. S., Leadership and Social Distance. *Sociol. and Soc. Res.*, 1927, 12, 173-178.
12. BOGARDUS, E. S., Leadership and Attitudes. *Sociol. and Soc. Res.*, 1929, 13, 376-381.
13. CATLIN, G. E. G., The Delimitation and Measurability of Political Phenomena. *Amer. Pol. Sci. Rev.*, 1927, 21, 255-269.
14. CHAPIN, F. S., *Cultural Change*. N. Y.: Century, 1928. Pp. 425-437.
15. DEWEY, J., *Human Nature and Conduct*. N. Y.: Holt, 1922. Entire book.
16. FARIS, E., The Nature of Human Nature. *Proc. Amer. Sociol. Soc.*, 1926, 20, 15-29.
17. FARIS, E., The Subjective Aspect of Culture. *Proc. Amer. Sociol. Soc.*, 1925, 19, 37-46.
18. FARIS, E., Attitudes and Behavior. *Amer. J. of Sociol.*, 1928, 34, 271-281.
19. FARIS, E., The Concept of Social Attitudes. *J. of Ap. Sociol.*, 1925, 9, 404-409.

20. FARIS, E., Social Psychology in America; A Topical Summary of Current Literature. *Amer. J. of Sociol.*, 1927, 32, 623-630. (Bib. review.)
21. FOLSOM, J. K., The Conditioned Response and Personality. *Indus. Psychol.*, 1926, 1, 804-810.
22. HART, H., The Transformation of Motivation. *Amer. J. of Sociol.*, 1930, 35, 588-600.
23. HOLT, E. B., *The Freudian Wish*. N. Y.: Holt, 1915. Esp. Chapters III and IV.
24. HOUSE, F. N., Wishes and Attitudes as Social Forces. *Amer. J. of Sociol.*, 31, 512-525.
25. HOUSE, F. N., *The Range of Social Theory*. N. Y.: Holt, 1929. Chapter XV, esp. pp. 192-199.
26. KERSHNER, J. H., Race Prejudice: A Form of Group Prejudice. *J. of Ap. Sociol.*, 1927, 11, 446-452.
27. KÖHLER, W., *Gestalt Psychology*. N. Y.: H. Liveright, 1929. Pp. 184 ff, pp. 323 ff, and Chapters IX and X.
28. MARKEY, J. F., *Trends in American Sociology*. N. Y.: Harper, 1929. Pp. 126-135.
29. MCKAY, H. D., *The Development of Personality Traits*. Doctoral dissertation, Univ. of Chicago, 1930.
30. MILLER, KELLY, Is Race Prejudice Innate or Acquired? *J. of Ap. Sociol.*, 1927, 11, 516-524.
31. NEWCOMB, R. G., *An Analysis of the Concept Personality Type*. M.A. Thesis, University of Chicago, 1929.
32. PARK, R. E., and BURGESS, E. W., *Introduction to the Science of Sociology*. Chicago: University of Chicago Press, 1924. Chapter VII, Social Forces, esp. pp. 438-443.
33. PARK, R. E., The Concept of Social Distance. *J. of Ap. Sociol.*, 1924, 8, 339-344.
34. PERRY, H. E., The Questionnaire Method. *J. of Ap. Sociol.*, 1925, 10, 155-158.
35. POOLE, W. C., JR., and H. K., The Laws of Social Distance. *J. of Ap. Sociol.*, 1927, 11, 365-369.
36. POOLE, W. C., JR., The Social Distance Margin Reviewed. *Sociol. and Soc. Res.*, 1928, 13, 49-54.
37. POOLE, W. C., JR., Social Distance and Personal Distance. *J. of Ap. Sociol.*, 1926, 10, 114-120.
38. PRINCE, M., Why We Have Traits. *J. of Abnor. and Soc. Psychol.*, 1929, 23, 422-433.
39. ROBACK, A. A., *A Bibliography of Character and Personality*. Cambridge: Harvard Univ. Press, 1927. (Most complete personality bib. to this date.)
40. ROOT, W. I., The Psychology of Radicalism. *J. of Abnor. and Soc. Psychol.*, 1925, 19, 341-356.
41. RUSSELL, B., *The Analysis of Mind*. London: Allen and Unwin, 1921. Esp. pp. 58-76 and 77-92.

42. SHELDON, H. C., *The Place of Autistic Mechanisms in the Institutional Formulations of Certain Divergent Sects*. Doctoral dissertation, Univ. of Wisconsin, 1930.
43. SMITH, W. C., *The Rural Mind: A Study in Occupational Attitude*. *Amer. J. of Sociol.*, 1927, 32, 771-786.
44. SOROKIN, PITIRIM, *Contemporary Sociological Theories*. N. Y.: Harper, 1928. Chapter XI, esp. pp. 644-659.
45. SYMONDS, P. M., *The Nature of Conduct*. N. Y.: Macmillan, 1928. Esp. pp. 216-239.
- ✓ 46. SYMONDS, P. M., What is an Attitude? *Psychol. Bull.*, 1927, 24, 200-201. (Abstract.)
47. THOMAS, W. I., *The Unadjusted Girl*. Boston: Little, Brown, 1923. Pp. 1-69.
48. THOMAS, W. I., and ZNANIECKI, F., *The Polish Peasant in America*. Boston: Badger, 1918. Volume I, Methodological Note, pp. 1-86, and Introduction to Volume III, pp. 5-88.
49. THOMAS, W. I., The Problem of Personality in the Urban Environment. *Proc. Amer. Sociol. Soc.*, 1926, 20, 30-39.
50. WATSON, J. B., The Heart or the Intellect? *Harper's Mag.*, 1928, 156, 345-352.
51. WATSON, J. B., Experimental Studies on the Growth of Emotions (pp. 328-348), and Recent Experiments on How We Lose and Change Our Emotional Equipment. *Ped. Sem.*, 1925, 32, 349-371.
52. WILLIAMS, J. M., *The Principles of Social Psychology*. N. Y.: Knopf, 1922. Chapter I.
- ✓ 53. WILLIS, W. C., The Measure of Social Attitudes. *J. of Ap. Sociol.*, 1924, 8, 183-188.
54. YOUNG, K., The Measurement of Personal and Social Traits. *J. of Abnor. and Soc. Psychol.*, 1928, 22, 431-442. Abstract in *Proc. Amer. Sociol. Soc.*, 1927, 21, 92-105.
55. YOUNG, K., The Field of Social Psychology. *Psychol. Bull.*, 1927, 24, 661-691.
56. YOUNG, K., Topical Summary of Current Literature: Personality Studies. *Amer. J. Sociol.*, 1927, 32, 952-971. (Bib. of 189 references.)
57. YOUNG, K., *The Social Psychology of Oriental-Occidental Prejudices*. American Council of the Institute of Pacific Relations, 129 E. 52d St., New York, 1929, pp. 1-23.

#### SECTION II: MEASUREMENT: THEORY AND TECHNIQUE

58. ALLPORT, F. H. and G. W., Personality Traits: Their Classification and Measurement. *J. of Abnor. and Soc. Psychol.*, 1921, 16, 6-40.
- ✓ 59. ALLPORT, G. W., A Test for Ascendancy-Submission. *J. of Abnor. and Soc. Psychol.*, 1928, 23, 118-136.
60. BOGARDUS, E. S., Measuring Social Distances. *J. of Ap. Sociol.*, 1925, 9, 299-308.
61. BRIDGES, J. W., Emotional Instability of College Students. *J. of Abnor. and Soc. Psychol.*, 1927, 22, 227-234.
62. CONKLIN, E. S., The Determination of Normal Extrovert-Introvert Interest Differences. *Ped. Sem.*, 1927, 34, 28-37.



63. HARPER, M. H., Social Beliefs and Attitudes of American Educators. *Columbia Univ., Teachers Coll. Cont. to Educ.*, 1927, No. 294. Pp. 91.
64. HARTSHORNE, H., and MAY, M. A., First Steps Toward a Scale for Measuring Attitudes. *J. of Educ. Psychol.*, 1926, 17, 145-162.
65. HEWLETT, T. C., and LESTER, O. P., Measuring Introversion and Extroversion. *Personnel J.*, 1927, 6, 352-360.
- 65a. KIRKPATRICK, C. L., Statistical Method in Relation to Personality and Personality Maladjustment. To appear in *Proceedings of the Amer. Sociol. Soc.*, 1930, 24.
66. KORNHAUSER, A. W., Reliability of Average Ratings. *Personnel J.*, 1926, 5, 309-317.
67. KORNHAUSER, A. W., A Comparison of Raters. *Personnel J.*, 1926, 5, 338-344.
68. KORNHAUSER, A. W., A Comparison of Ratings on Different Traits. *Personnel J.*, 1927, 5, 440-446.
69. LEHMAN, H. C., and WITTY, P. A., Statistics Show ———. *J. of Educ. Psychol.*, 1928, 19, 175-184. (Bib.)
70. LUNDBERG, G. A., *Social Research: A Study in the Methods of Gathering Data*. N. Y.: Longmans, 1929. Chapter IX, Measurement of Attitudes. (Bib.)
71. MANSON, G. E., A Bibliography of the Analysis and Measurement of Human Personality up to 1926. *Nat. Res. Council Reprint*, No. 72, 1926.
72. MANSON, G. E., Bibliography on Psychological Tests and Other Objective Measures in Industrial Personnel. *J. of Personnel Res.*, 1925, 4, 301-328. (Classified bib., titles 539-650 esp. valuable.)
73. MAY, M. A., and HARTSHORNE, H., Personality and Character Tests. *Psychol. Bull.*, 1926, 23, 395-411; (Bib. review) 1929, 24, 418-435; 1928, 25, 422-443; 1929, 26, 418-444.
74. MAY, M. A., and HARTSHORNE, H., Objective Methods of Measuring Character. *Ped. Sem.*, 1925, 32, 45-67. (Bib. review.)
75. MELTZER, H., Children's Social Concepts. *Teachers Coll. Cont. to Educ.*, No. 192, 1925. Pp. 91.
76. RICE, S. A., and OTHERS, *Statistics in Social Studies*. To be published by University of Pennsylvania Press, Philadelphia, 1930.
77. RICE, S. A., and WEAVER, W. W., The Verification of Social Measurements Involving Subjective Classifications. *Social Forces*, 1929, 8, 16-28.
78. RICE, S. A., Measurements of Social Attitude and Public Opinion. U. S. Dept. of Agri., *Bur. of Agri. Economics Bull.*, Feb., 1930, pp. 11-20. A similar paper to appear in *P. A. S. S.*, 1930. Discussion by G. W. Allport, pp. 20-23.
79. SHIDELER, E. F., The Social Distance Margin. *Sociol. and Soc. Res.*, 1928, 12, 243-252.
- 79a. STOUFFER, S. A., *Experimental Comparison of Statistical and Case History Methods in Attitude Research*. Doctoral dissertation, Univ. of Chicago, 1930.
80. SYMONDS, P. M., The Present Status of Character Measurement. *J. of Educ. Psychol.*, 1924, 15, 484-498. (Bib.)

81. THURSTONE, L. L., and CHAVE, E. J., *The Measurement of Attitude*. Chicago: Univ. of Chicago Press, 1929. Pp. 96.
82. THURSTONE, L. L., The Method of Paired Comparisons for Social Values. *J. of Abnor. and Soc. Psychol.*, 1927, 21, 384-400.
83. THURSTONE, L. L., Attitudes Can Be Measured. *Amer. J. of Sociol.*, 1928, 33, 529-554.
84. THURSTONE, L. L., The Measurement of Opinion. *J. of Abnor. and Soc. Psychol.*, 1928, 22, 415-430.
85. WATSON, G. B., The Measurement of Less Tangible Qualities. *Voc. Guid.*, 1926, 4, 281-289.
86. WATSON, G. B., A Supplementary Review of Measures of Personality. *J. of Educ. Psychol.*, 1927, 18, 73-87.
87. WRIGHT, V. C., *Analysis of Various Measures of Personality*. Doctoral dissertation, Univ. of Wisconsin, 1930.
88. ZIMMERMAN, C. C., SIMS, N. L., and HAMILTON, C. H., Social Attitudes. U. S. Department of Agri., *Bur. of Agri. Econ. Bull.*, Feb., 1930, p. 9.
89. ZIMMERMAN, C. C., and ANDERSON, C. A., Attitudes of Rural Preachers Regarding Church Union and Science. *Sociol. and Soc. Res.*, 1927, 12, 144-150.

### SECTION III: OVERT BEHAVIOR ATTITUDES

90. BINNEWIES, W. G., The Measurement of Community Spirit. *Sociol. and Soc. Res.*, 1928, 12, 264-267.
91. BLANCHARD, P., and PAYNTER, R. H., The Socio-Psychological Status of Children from Marginal Families. *Family*, 1927, 8, 3-10.
92. BRIDGES, K. M. B., Occupational Interests of Three-year-old Children. *Ped. Sem.*, 1927, 34, 415-423.
93. CARMICHAEL, A. M., To What Objective Stimuli do Six-year-old Children Respond with Intentional Misrepresentation of Facts? *J. of Genetic Psychol.*, 1928, 35, 73-83.
94. CHAMBERS, E. V., A Study of Dishonesty Among the Students of a Parochial Secondary School. *Ped. Sem.*, 1926, 33, 717-728.
95. CHAPIN, F. S., Measuring the Volume of Social Stimuli: A Study in Social Psychology. *Social Forces*, 1926, 4, 479-495.
96. CLARK, E. L., The Value of Student Interviews. *J. Pers. Res.*, 1926, 5, 204-207.
97. FRYER, D., Predicting Abilities from Interest. *J. of Ap. Psychol.*, 1927, 11, 212-225. (Short bib.)
98. HARTSHORNE, H., and MAY, M. A., ET AL., Testing the Knowledge of Right and Wrong. *Relig. Educ.*, 1926, 21, 539-554.
99. HARTSHORNE, H., and MAY, M. A., *Studies in Service and Self-Control*. N. Y.: Macmillan, 1929.
100. HARTSHORNE, H., and MAY, M. A., *Studies in Deceit*. N. Y.: Macmillan, 1928.
101. HAWTHORN, H. B., Methods of Studying Personality Developments in Rural and Urban Groups. *Proc. Amer. Sociol. Soc.*, 1929, 23, 274-283.
102. JOHNSON, G. B., Newspaper Advertisements and Negro Culture. *Soc. Forces*, 1925, 3, 706-709.

103. JONES, M. C., The Elimination of Children's Fears. *J. of Exper. Psychol.*, 1924, 7, 382-390.
104. LEHMAN, H. C., and WITTY, P. A., Some Compensatory Mechanisms of the Negro. *J. of Abnor. and Soc. Psychol.*, 1928, 23, 28-37.
105. LEHMAN, H. C., and WITTY, P. A., Play Interests as Evidences of Sex Differences in Aesthetic Appreciations. *Amer. J. of Psychol.*, 1928, 40, 449-457.
106. LUNDBERG, G. A., The Demographic and Economic Basis of Political Radicalism and Conservatism. *Amer. J. of Sociol.*, 1927, 32, 719-732.
107. LUNDBERG, G. A., The Newspaper and Public Opinion. *Soc. Forces*, 1926, 4, 709-715.
108. MORRIS, A., Some Social and Mental Aspects of Mendicancy. *Soc. Forces*, 1927, 5, 605-613.
109. RICE, S. A., *Quantitative Methods in Politics*. N. Y.: Knopf, 1928. (Chapters III and IV are esp. good on theory of measurement.)
110. TERMAN, L. M., Tests of Character and Personality Traits, Chapter XVII, pp. 485-517, and Trait Ratings, Chapter XVIII, pp. 518-555, in Volume I, *Genetic Studies of Genius*. Palo Alto: Stanford Univ. Press, 1925.
111. THOMAS, D. S., ET AL., Some New Techniques for Studying Social Behavior. N. Y.: *Child Delinquency Mono.*, No. 1, 1929.
112. VANCE, R. B., Cotton Culture and Social Life and Institutions of the South. *Proc. Amer. Sociol. Soc.*, 1929, 23, 50-59.
113. VERRY, E. E., A Study of Personality in Pre-School Groups. *Soc. Forces*, 1925, 3, 645-648.
114. VERRY, E. E., *A Study of Mental and Social Attitudes in the Free-Play of Pre-School Children*. M.A. thesis, Univ. of Iowa.
115. VOELKER, P. F., The Function of Ideals and Attitudes in Social Education. *Teachers Coll. Cont. Educ.*, No. 112, 1921. Pp. 126.
116. WALKER, M., *A Study of Interaction in Young Children with Special Reference to Subordination and Domination*. Doctoral dissertation, Univ. of Minnesota, 1929.
117. WATSON, J. B., and RAYNOR, R., Studies in Infant Psychology. *Scient. Mon.*, 1921, 13, 493-515.
118. WITTY, P. A., and LEHMAN, H. C., The Play Behavior of Fifty Gifted Children. *J. of Educ. Psychol.*, 1927, 18, 259-265.
119. ZIMMERMAN, C. C., Types of Farmers' Attitudes. *Soc. Forces*, 1927, 5, 591-596.

## SECTION IV: CASE STUDY METHODS AND ATTITUDES

120. ANGELL, R. C., *The Campus: A Study of Contemporary Undergraduate Life in the American University*. N. Y.: Appleton, 1928. Pp. 239.
121. ARAI, C., *Cultural Conflicts in Homes of the Second-Generation Japanese*. M.A. thesis, University of Washington, 1929.
122. BAIN, READ, The Validity of Diaries and Life-Histories. *J. of Educ. Sociol.*, 1929, 3, 150-164.
123. BAIN, READ, The Impersonal Confession and Social Research. *J. of Ap. Sociol.*, 1925, 9, 351-356.
124. BALCH, E., *Relationship of Social Case History to the Diagnosis and*

*Treatment of Juvenile Delinquency.* M.A. thesis, Univ. of So. Calif., 1927.

125. BELLMAN, E. S., *Men's Attitudes Toward Outside Activities of Married Women.* M.A. thesis, Univ. of Kansas, 1929.
- ✓ 126. BOGARDUS, E. S., *Immigration and Race Attitudes.* N. Y.: Heath, 1928. Esp. Chapters II, III, VIII, IX.
127. BOGARDUS, E. S., Community Life Histories. *J. of Ap. Sociol.*, 1927, 11, 370-378.
128. BOGARDUS, E. S., American Attitudes Toward Filipinos. *Sociol. and Soc. Res.*, 1929, 14, 59-69.
129. BOGARDUS, E. S., Exploring for the Causes of Crime. *Soc. Forces*, 1925, 3, 464-466.
130. BRIETZ, M., *Case Studies of Delinquent Girls in North Carolina.* M.A. thesis, Univ. of N. Car., 1928.
131. BROWN, L. G., The Development of Diverse Patterns of Behavior Among Children of the Same Family. *Family*, 1928, 9, 35-39.
132. BURGESS, E. W., Statistics and Case Studies. *Soc. and Soc. Res.*, 1927, 12, 103-120.
133. BURGESS, E. W., The Family and the Person. *Proc. Amer. Sociol. Soc.*, 1928, 22, 133-143.
- ✓ 134. CALKINS, D. M., *The Social Background and Development of Religious Attitudes of a Selected Group.* M.A. thesis, Univ. of So. Calif., 1927.
135. COOLEY, C. H., The Case Study of Small Institutions as a Method of Research. *Proc. Amer. Sociol. Soc.*, 1928, 22, 123-132.
136. COOLEY, C. H., The Life-Study Method as Applied to Rural Social Research. *Proc. Amer. Sociol. Soc.*, 1929, 23, 248-254.
137. FISHER, L., *A Study of the Life-Histories of Twenty Delinquent Girls.* M.A. thesis, Univ. of So. Calif., 1927.
138. GUTHRIE, E. F., *Crises in Personality.* Doctoral dissertation, Univ. of Washington, 1930.
139. HEALY, W., and BRONNER, A. F., *Case Studies.* Judge Baker Foundation, 1922-23, Boston.
140. HEALY, W., *The Individual Delinquent.* Boston: Little, Brown, 1920. Esp. Book I, pp. 3-182.
141. HOFFMAN, O. F., The Nature of Life-Histories. *J. of Ap. Sociol.*, 1926, 11, 147-159.
142. JOCHER, K., The Case Method in Social Research. *Soc. Forces*, 1928, 7, 203-211. (Bib.)
143. KREUGER, E. F., The Values of Life-History Documents for Social Research. *J. of Ap. Sociol.*, 1925, 9, 196-201.
144. KREUGER, E. F., The Technique of Securing Life-History Documents. *J. of Ap. Sociol.*, 1925, 9, 290-298.
- ✓ 145. LASKEB, B., *Race Attitudes in Children.* N. Y.: Holt, 1929, xvi+394 pp.
146. LIND, A. W., Occupational Attitudes of Orientals in Hawaii. *Sociol. and Soc. Res.*, 1929, 13, 245-255.
147. LYND, R. S. and H. M., *Middletown, a Study in Contemporary American Culture.* N. Y.: Harcourt, 1929.
148. McCHRISTIE, M. E., That Blamed Old Fool. *Survey*, 1929, 63, 21 ff.



149. McCHRISTIE, M. E., *Peg's Permanent*. Survey, 1930, 63, 510 ff.
150. McCLENAHAN, B. A., *The Changing Urban Neighborhood: A Sociological Study*. Univ. of So. Calif. Stud., Social Science Series, 1929, No. 1, xi+140.
151. NIMKOFF, M., *The Rôle of the Family in the Formation and Development of Certain Social Attitudes Among Children*. Doctoral dissertation, Univ. of So. Calif., 1928.
152. ODUM, H. W., and JOCHER, K., *Introduction to Social Research*. N. Y.: Holt, 1929. Esp. Chapter XV.
153. PITKIN, W. B., *The Psychology of Happiness*. N. Y.: Simon and Schuster, 1929. (See pp. 33-41 for attitudes.)
154. RHYNE, J. J., *A Case Study of Five Hundred Mill-Village Families*. Doctoral dissertation, Univ. of N. Car., 1927.
155. SAYLES, M. B., *The Problem Child in School: Narratives from Case Records of Visiting Teachers*. N. Y.: Joint Com. on Meths. of Preventing Delinquency, 1925, p. 287.
156. SAYLES, M. B., *The Problem Child at Home: A Study in Parent-Child Relationships*. N. Y.: Commonwealth Fund, 1928. Pp. x+342.
157. SHAW, C. R., *Family Background in Male Juvenile Delinquency*. Doctoral dissertation, Univ. of Chicago, 1930.
158. SHAW, C. R., *Case Study Method*. Proc. Amer. Sociol. Soc., 1927, 21, 149-157.
159. *Social Forces*, 1928, 6, 524-569. Technique of Interviewing, esp. articles by E. W. BURGESS, L. B. SWIFT, T. D. ELLIOT, S. A. QUEEN, HELEN MYRICK, and J. C. COLCORD.
160. SULLENGER, T. E., *Social Determinants of Juvenile Delinquency*. Doctoral dissertation, Univ. of Chicago, 1930.
161. TALLMAN, L., *Attitudes of College Students Toward Self-Government*. M.A. thesis, Univ. of So. Calif., 1927.
162. TEWATER, M., *Analyses with Source Materials Illustrating the Attitude of Parents, Teachers and Others as Contributing Factors in the Development of the Problem Child Situations*. M.A. thesis, Univ. of So. Calif., 1927.
163. WATSON, M. E., *Factors in the Emotional Lives of Parents which Affect the Behavior of Children*. Doctoral dissertation, N. Y. Univ. School of Educ., 1930.
164. WEMBRIDGE, E. R., *Other People's Daughters*. Boston: Houghton Mifflin, 1926. Pp. ix+333.
165. YOUNG, P. V. and E. F., *Getting at the Boy Himself: Through the Personal Interview*. Soc. Forces, 1928, 6, 408-415.
166. ZORBAUGH, H. W., *The Gold Coast and the Slum*. Chicago: Univ. of Chicago Press, 1929.

## SECTION V: VERBAL ATTITUDES (OPINIONS)

167. ALDERSON, C. J., *Social Attitudes of Athletes*. M.A. thesis, Univ. of Texas, 1927.
168. ALLPORT, F. H., and HARTMAN, D. A., *The Measurement of Atypical Opinion in a Certain Group*. Amer. Pol. Sci. Rev., 1925, 19, 735-760.

- ✓ 169. ALLPORT, G. W., The Composition of Political Attitudes. *Amer. J. of Sociol.*, 1929, 35, 220-238.
- ✓ 170. ANDERSON, W. A., The Occupational Attitudes and Choices of a Group of College Men. *Soc. Forces*, 1927, 6, 278-283; 1928, 6, 467-473.
- ✓ 171. BAIN, READ, Religious Attitudes of College Students. *Amer. J. of Sociol.*, 1927, 32, 762-770.
172. BINNEWIES, W. G., A Method of Studying Rural Social Distance. *J. of Ap. Sociol.*, 1926, 10, 239-242.
173. BOGARDUS, E. S., Race Friendliness and Social Distance. *J. of Ap. Sociol.*, 1927, 11, 272-287.
174. BOGARDUS, E. S., Static Social Distance. *J. of Ap. Sociol.*, 1927, 11, 579-583.
175. BOGARDUS, E. S., Social Distance and Its Origins. *J. of Ap. Sociol.*, 1925, 9, 216-226.
- ✓ 176. BOGARDUS, E. S., Analyzing Changes in Public Opinion. *J. of Ap. Sociol.*, 1925, 9, 372-381.
177. BOGARDUS, E. S., Sex Differences in Racial Attitudes. *Sociol. and Soc. Res.*, 1928, 12, 279-285.
178. BROGAN, A. P., Moral Valuations About Men and Women. *Int. J. of Ethics*, 1925, 35, 105-124.
179. BROGAN, A. P., What Is a Sin in College? *Nation*, 1925, 120, 570-571.
180. BROTEMARKLE, R. A., The Analytical Study of the Student Personnel Problem. *J. of Ap. Psychol.*, 1928, 13, 1-42.
- ✓ 181. CLARK, W. W., The Measurement of Social Attitudes. *J. of Ap. Sociol.*, 1924, 8, 345-354.
182. CONKLIN, E. S., Some Mental Effects of Menstruation. *Ped. Sem.*, 1927, 34, 557-567.
- ✓ 183. COWDERY, K. M., The Measurement of Professional Attitudes: Differences Between Lawyers, Physicians, and Engineers. *J. Person. Res.*, 1926, 5, 131-141.
184. DAVIS, J., Testing the Social Attitudes of Children in the Government Schools in Russia. *Amer. J. of Sociol.*, 1927, 32, 947-952.
185. FENTON, N., The Only Child. *J. of Genetic Psychol.*, 1928, 35, 546-555.
186. FREYD, M., The Measurement of Interests in Vocational Selection. *J. of Person. Res.*, 1922, 1, 319-328.
187. GARRETT, H. E., Personality as "Habit Organization." *J. of Abnor. and Soc. Psychol.*, 1926, 21, 250-255.
188. GARRETT, H. E., Jews and Others: Some Group Differences in Personality, Intelligence and College Achievement. *Person. J.*, 1928, 7, 341-348.
- ✓ 189. GIBSON, W. I., *Comparative Study of the Immigrant and Negro Press in Their Relation to Social Attitudes*. M.A. thesis, Ohio State Univ., 1927.
190. GUILFORD, J. P., An Attempted Study of Emotional Tendencies in Criminals. *J. of Abnor. and Soc. Psychol.*, 1926, 21, 240-244.
191. GUTHRIE, E. R., Measuring Introversion and Extroversion. *J. of Abnor. and Soc. Psychol.*, 1927, 22, 82-88. (Bib.)
192. HAGGERTY, M. E., The Incidence of Undesirable Behavior in Public School Children. *J. of Educ. Res.*, 1925, 12, 102-122.
- ✓ 193. HART, H., A Test of Social Attitudes and Interests. *Univ. of Iowa Stud. in Child Welfare*, II, No. 4, 1923, pp. 40. (Good bib.)

194. HEIDBREDER, E. F., The Normal Inferiority Complex. *J. of Abnor. and Soc. Psychol.*, 1927, 22, 243-258.
195. HEIDBREDER, E. F., Introversion and Extroversion in Men and Women. *J. of Abnor. and Soc. Psychol.*, 1927, 22, 52-61.
196. HEIDBREDER, E. F., Measuring Introversion and Extroversion. *J. of Abnor. and Soc. Psychol.*, 1926, 21, 120-134.
197. HUBBARD, R. M., Interest Studied Quantitatively. *J. of Personal Res.*, 1926, 4, 365-378.
198. HUGHES, W. H., Relation of Intelligence to Trait Characteristics. *J. of Educ. Psychol.*, 1926, 17, 482-494.
199. HULL, C. L., Variability in the Amount of Different Traits Possessed by the Individual. *J. of Educ. Psychol.*, 1927, 18, 97-106.
200. HURD, F., *Influence of the Motion Picture on Attitudes*. M.A. thesis, Dartmouth College, 1929.
201. HYPES, J. L., The Social Distance Score-Card as a Teaching Device. *Soc. Forces*, 1928, 7, 234-237.
202. JASPER, H. H., Optimism and Pessimism in College Engineers. *Amer. J. of Sociol.*, 1929, 34, 856-873.
203. JONES, E. S., Opinions of College Students. *J. of Ap. Psychol.*, 1926, 10, 427-436.
204. JONES, V., Disagreement Among Teachers as to Right and Wrong. *Teachers Coll. Rec.*, 1929, 31, 24-26.
205. JORDAN, F., A Study of Personal and Social Traits in Relation to High School Teaching. *J. of Educ. Sociol.*, 1929, 3, 27-43.
206. KATZ, D., Student Opinion at Syracuse. *Person. J.*, 1929, 7, 103-110.
207. KORNHAUSER, A. W., Results from a Quantitative Questionnaire on Likes Dislikes Used with a Group of College Freshmen. *J. of Ap. Psychol.*, 1927, 11, 85-94.
208. LAPIERE, R. T., Race Prejudice: France and England. *Soc. Forces*, 1928, 7, 102-111.
209. LEE, A. S., Attitudes as a Factor of Teaching in Normal Schools. *J. of Educ. Sociol.*, 1928, 2, 232-238.
210. LEHMAN, H. C., I, Play Activities of Persons of Different Ages, 250-272; II, Growth Stages in Play Behavior, 273-287; III, A Comparison of the Play Activities of Town and Country Children, 455-476; IV, Community Differences in Play Behavior, 477-490; all in *Ped. Sem.*, 1926, 33.
211. LUNDBERG, G. A., Sex Differences on Social Questions. *Sch. and Soc.*, 1926, 23, 596-600.
212. MATHEWS, C. O., The Effect of the Order of Printed Response Words on an Interest Questionnaire. *J. of Educ. Psychol.*, 1929, 20, 128-134.
213. MOORE, H. T., Innate Factors in Radicalism and Conservatism. *J. of Abnor. and Soc. Psychol.*, 1925, 20, 234-244.
214. NEUMANN, G. B., A Study of Interest Attitudes of High School Students. *Teachers Coll. Contr. to Educ.*, No. 239, 1926, pp. 126.
215. NIMKOFF, M. F., Parent-Child Intimacy: An Introductory Study. *Soc. Forces*, 1928, 7, 244-249.
216. PICKETT, J., *Occupational Attitudes of Teachers in Relation to Their Social Status and Leadership in the Community*. M.A. Thesis, Univ. of So. Calif., 1929.

217. QUIROLGICO, J. R., *An Analysis of Social Attitudes*. M.A. thesis, Univ. of So. Calif., 1929.
218. RAVITCH, J., Relative Rate of Change in Customs and Beliefs of Modern Jews. *Proc. Amer. Sociol. Soc.*, 1925, 19, 171-176.
219. REINHARDT, J. M., Students and Race Feeling. *Survey*, 1928, 61, 239-240.
220. REMMERS, H. H., The Measurement of Interest Differences Between Students of Engineering and Agriculture. *J. of Ap. Psychol.*, 1929, 13, 105-119.
221. RICE, S. A., Undergraduate Attitudes Toward Marriage and Children. *Ment. Hyg.*, 1929, 13, 788-793.
222. RICE, S. A., Stereotypes: A Source of Error in Judging Human Character. *J. of Person. Res.*, 1926, 5, 267-276.
223. SHUTTLEWORTH, F. K., A New Method of Measuring Character Traits. *Sch. and Soc.*, 1924, 19, 679-682.
224. STOKES, S. M., and CLINE, W. F., The Avocations of One Hundred College Freshmen. *J. of Ap. Psychol.*, 1929, 13, 257-265.
225. STRONG, E. K., Interest Analysis of Personnel Managers. *J. of Person. Res.*, 1926, 5, 335-342.
226. STRONG, E. K., An Interest Test for Personnel Managers. *J. of Person. Res.*, 1926, 5, 194-203.
227. SUNNE, D., Personality Tests: White and Negro Adolescents. *J. of Ap. Psychol.*, 1925, 9, 256-280.
- 228. SYMONDS, P. M., A Social Attitudes Questionnaire. *J. of Educ. Psychol.*, 1925, 16, 316-322.
- 229. THOMAS, D. V., *An Analysis of Student Attitudes in Relation to Campus Social Organization*. M.A. thesis, 1927, Univ. of Nebraska.
230. TRAVIS, R. C., The Measurement of Fundamental Character Traits by a New Diagnostic Test. *J. of Abnor. and Soc. Psychol.*, 1925, 19, 400-420.
231. WATSON, G. B., The Measurement of Fairmindedness. *Teachers Coll. Contr. to Educ.*, No. 176, 1925, pp. 97.
232. WICKMAN, E. K., Children's Behavior and Teachers' Attitudes. *Joint Com. on Meths. of Preventing Delinquency*, N. Y., 1928.
233. WILKINSON, F., Social Distance Between Occupations. *Sociol. and Soc. Res.*, 1929, 13, 234-244.
234. WOOLSTON, H., Stepbrothers: A Study of Prejudice and Convention. *Soc. Forces*, 1928, 6, 368-375.
235. WU, C. L., *Attitudes Toward Negroes, Jews and Orientals*. Doctoral dissertation, Ohio State University, 1927.
236. WYMAN, J. B., Tests of Intelligence, Social and Activity Interests. Chapter XVI, pp. 455-483, of Terman, et al., *Genetic Studies of Genius*, Volume I. Palo Alto: Stanford Univ. Press, 1925.
- 237. YOAKUM, C. S., and MANSON, G. E., Self-Ratings as a Means of Determining Trait-Relationships and Relative Desirability. *J. of Abnor. and Soc. Psychol.*, 1926, 21, 52-64.
238. YOUNG, J. R., The Changing Attitudes of Adolescents Toward Religion and the Church. *Relig. Educ.*, 1929, 24, 775-778.
239. YOUNG, P. V., Occupational Attitudes and Values of Russian Lumber Workers. *Sociol. and Soc. Res.*, 1928, 12, 543-553.
240. ZELENY, L. D., A Measure of Social Opinions of Students. *J. of Ap. Sociol.*, 1926, 11, 56-64.



## SECTION VI: CHANGING ATTITUDES AND OPINIONS

241. BERNAYS, E. L., Manipulating Public Opinion: The Why and the How. *Amer. J. of Sociol.*, 1928, 33, 958-971.
242. BLANCHARD, P., and PAYNTER, R. H., The Educational Achievement of Children with Personality and Behavior Difficulties. *Joint Com. on Meths. of Preventing Delinquency*, N. Y., 1928.
243. BLANCHARD, P., and PAYNTER, R. H., Changing the Child's Behavior by Direct Methods. *J. of Ap. Sociol.*, 1925, 9, 425-436.
244. BLANCHARD, P., and PAYNTER, R. H., Changing the Child's Behavior by Indirect Methods. *J. of Ap. Sociol.*, 1925, 9, 338-350.
245. BOGARDUS, E. S., Mutations of Social Distance. *J. of Ap. Sociol.*, 1926, 11, 77-84.
246. BROWN, G. V., *A Study of Changes in Social Attitudes*: With particular reference to the Columbia Conserve Company. M.A. thesis, Univ. of Cincinnati, 1929.
247. GROSS, A. J., *The Family as a Builder of Social Attitudes*. M.A. thesis, Baylor Univ.
248. HERSHEY, R. B., Periodic Emotional Changes in Male Workers. *Person. J.*, 1929, 7, 459-464.
249. JONES, M. C., Conditioning and Unconditioning Emotions in Infants. *Childhood Educ.*, 1925, 1, 317-322.
250. LASSWELL, H. D., The Theory of Political Propaganda. *Amer. Pol. Sci. Rev.*, 1927, 31, 627-231.
251. MARSTON, L. R., The Emotions of Young Children: An Experimental Study in Introversion and Extroversion. *Univ. of Iowa Stud. in Child Welfare*, III, 1925. Pp. 99.
252. MYRICK, H. L., and SHEFFIELD, A. E., Reflective By-Products of a Social Treatment Interview. *Soc. Forces*, 1925, 3, 657-665.
253. PEARSON, R. R., *The Social Modification of Possession Habits at the Pre-School Level*. Doctoral dissertation, 1929, Univ. of Chicago.
254. STURGES, H. A., The Theory of Correlation Applied in Studies of Changing Attitudes. *Amer. J. of Sociol.*, 1927, 33, 269-275.
255. TANQUIST, M. R., *An Experimental Study of the Effects of Competition and Equal and Unequal Remuneration on the Efficiency of the Work of Children Between Five and Seven Years of Age*. Doctoral dissertation, Univ. of Minnesota, 1930.
256. WATSON, J. B., Behaviorism: A Psychology Based on Reflexes. *Arch. Neurol. and Psychiat.*, 1926, 15, 185-202.
257. WATSON, J. B., The Myth of the Unconscious. *Harper's Mag.*, 1927, 155, 502-508.
258. WILLEY, M. M., and RICE, S. A., William Jennings Bryan as a Social Force. *Soc. Forces*, 1924, 2, 338-344.
259. YOUNG, D., Some Effects of a Course in American Race Problems on the Race Prejudice of Four Hundred and Fifty Undergraduates of the University of Pennsylvania. *J. of Abnor. and Soc. Psychol.*, 1927, 22, 235-242.
260. YOUNG, P. V. and E. J., Mutation of Personality. *J. of Ap. Sociol.*, 1925, 9, 442-449.
261. ZELENY, L. D., Pupil-Teacher Relationships. *Sociol. and Soc. Res.*, 1929, 13, 265-275.

## RECENT SOCIAL PSYCHOLOGY

BY J. W. SPROWLS

*University of Maryland*

Social psychology to-day is largely a product of American scholarship and research. American politics, philanthropy, industry, jurisprudence, education, and religion have demanded a science of control and prediction of human behavior, not required by similar but less dynamic institutional counterparts in other countries. The net result is a mass of literature representing a vast field of inquiry and speculation, bearing tangential relations to all the social sciences. No student knows where to draw the line between social psychology as such and a score of other special sciences, which have to do with group action, interaction, and reaction, human and infra-human in reference.

The present brief digest represents an attempt to indicate the trend of progress in social psychology during the past two years. The bibliographical citations are by no means exhaustive, or even completely representative, for the by-paths of this pioneering are so numerous that a complete survey of its connections with other branches of social science would require the coöperative efforts of several specialists.

*The Evolution of "Pattern" Psychology.* Social psychology as a science is still in the making. It has yet to earn an undisputed place among the social sciences. In order to grasp the meaning of present trends, one must first briefly recount its progress during the present century. Assuming, as some have, that McDougall is the founder of social psychology, we may note that his first text (69) emancipated the growing science from the mysticism of Durkheim, Espinas, Tarde, and earlier students, even though it substituted one brand of mysticism for another.

The earlier students emphasized the group as the unit of social science. Very generally the group, mob, race, club, nation, sect, or what not, acted as a coercive agent. The basic question was: What happens when an individual becomes a member of a group? McDougall looked to native forces within the individual, which may on occasion become operative. In the interest of specificity of

explanatory causation he forced his reasoning into compartments which could not be squared with the facts of individual variability and social progress. But he did narrow the field.

It remained for F. H. Allport (2) to show in a systematic way that the nature of the individual is vastly more variable than the instinct theory as such can account for; that social situations, even the highly fortuitous so far as organization is concerned, are equally important as determiners of social behavior; that a "give and take" relation exists between and among individuals and their respective environmental situations and preconditions. For present historical perspectives we may say that social psychology to-day is progressing in line with that psychological mechanism called the conditioned reflex, popularized by the behaviorists, ably and succinctly applied to the field of pure sociology by Thomas (85).

Some conditioned reflex patterns seem to certain students to fall into the category of inherited predispositions. Thus Bartlett (6) argues that vocational temperaments appear as predispositions similar to Allport's "prepotent habits"; that persons born in a certain social class are predisposed toward certain occupations, skills, and general outlook upon social life. Loukas (58) studied the social consciousness among university students and concluded that such patterns as friendships are acquired on the basis of similarity of ideas, morals, and interest in amusements. The force of environment is best shown by Hayner (44), who studied the effects of hotel life on the development of personality patterns. Burgess (15), as editor, has brought together a valuable collection of papers, which perhaps better than any single contemporary volume portrays the importance of pattern psychology as a categorical approach to the understanding of psychosocial phenomena. This collection comes close to qualifying as a textbook for undergraduates.

It would appear that social psychology in America began in 1924. It is an outgrowth of a controversy, which as such well illustrates one of the principles of any evolving science (12). Out of this controversy has come a settled conviction that patterns as matters of individual acquisition will explain all psychological phenomena, social and individual. As investigation proceeds, the once widely accepted notion that individual psychology is one thing, and social psychology another, has found a place in the scrapheap of exploded psychological presuppositions. One is inclined to agree with Walther (95), who insists that the so-called behavior pattern should take first place

among the research problems of social psychology. This he regards as the long-sought "entity" of the science.

*Structural Psychology and Functional Psychology.* It is possible to study social psychology from the point of view of cross-sections of behavior (structural psychology) on the one hand, and from the point of view of synthetic integrations (functional psychology) on the other. These methods (or investigatorial attitudes) are really complementary rather than antithetical, as Markey (66) points out.

Those who hold that, methodologically, scientific facts may be classified according to their "reach," are not adverse to an interpretation of social behavior in terms of whole-body movements in response to whole-environmental situations. A given student may choose almost any formulation of the pattern psychology he wishes, and still be within the range of legitimate scientific inquiry.

It is precisely on this methodological point that Markey finds his "frames of reference," which denote the difference between psychology and sociology. Any psychologist may be expected to study his data in terms of the tradition established by Allport, while the sociologists may be expected to interpret social behavior in terms of Hankins' (40) suggestion that "In spite of the enormous potential variations in habit, motor, emotional and intellectual structure, each individual selects, within limits, those stimuli to which he will respond, responds to them in his own way, and thus evolves a personality which represents the response of his particular neural system to his own world."

It should, therefore, be said that the distinction between structural psychology and functional psychology to-day amounts to little more than academic verbiage. In this connection Young (102) anticipates the methodological future in making a plea for a combination of what he terms historico-genetic and anatomical-statistical procedures.

*Personality.* While for the most part the earlier literature on social psychology is speculative or at best merely inferential, the yield of the last few years betrays a decided interest in experimentation by way of the case history method. It is no exaggeration to say that psychology has been substantially reconstructed during the past fifteen years. This reconstruction has resulted in new and better concepts of individuality developing into personality. While most students (psychiatrists excepted), even to-day, are unwilling to pay more than passing obeisance to Freud and his psychological progeny, mostly wayward and incorrigible, the fact remains that psychoanalysis in one or another of its various ramifications qualifies as a theoretical



articulation point between structuralism and functionalism. We owe more, as a matter of motivation, to Jung and Adler, than we are sometimes willing to admit. While American realism "suffers on account of its memories" of Freud, it basks in the humanism of Adler and Jung.

This survey proposes to take no account of the literature on abnormal psychology. But pertinent to the section now under consideration, two borderline studies here deserve mention. Terry (84) reports the case histories of one hundred married women, reminding us of Freud's basic assumptions in respect to the normality of abnormal sexuality, as well as the psychodynamic biographical patterns which determine the flowering-out of personality. Hopkins (47) out-Freuds Freud in his ability to rake up doubtful data in support of his thesis that "the attitudes which had their origin in the infantile relationship of father-son are often the true cause of the adult's orientation toward particular social movements."

The Adlerian influence is in a measure still indirect. Two volumes by Wexberg (98) and Künkel (54) remind us of the popularization program that made Freud famous in America. More important in certain respects is the work of Vaughan (90) and of Walsh (94), who supplement each other in their decidedly popular interpretations of superiority and inferiority respectively. Still more important is the work of the Allports (3 and 4), who have supplemented actual experimental work by plausible theoretical considerations methodological in nature. At the same time Bender (9), Lehman (57), Gardner and Pierce (31), Chassell (18), and Hunter and Brunner (49) have contributed much to our knowledge of developmental personality in terms of Adlerian principles, dealing generally with college students.

When we approach personality studies from what might be called the Jungian point of view, several investigations attract attention. Jung's basic types, introverts and extraverts, are no longer considered poetical classifications. While pure types are rare, their modifications, plus and minus, run deep. Furukawa (30) by blood tests found "active" and "passive" temperaments, which correspond to extravert and introvert respectively. Rich (78) believes there is some relationship between one's personality and one's chemical make-up, and McDougall (68) thinks that introversion and extraversion are associated with thyroid secretion. Whitman (100) finds no differences worthy of mention between the sexes on the question of introversion and extraversion. At the same time these dispositions

tend to become settled types at increasing age-levels. Broom (13) finds that introverted students below the average as rated by standard intelligence tests show a tendency to more facile school adjustment than do the extraverted who rate higher by the same intelligence tests. He finds reason, however, to avoid extreme generalization on this point. Whitman (99) proposes a short scale for determining introversion and extraversion, suggesting possible vocational applications, as do Hewlett and Lester (46) and Neymann and Kohlstedt (72). Campbell (16) finds limited test applications for introversion and extraversion among the insane, indicating how fundamental these dispositions are, while Powers (75) suggests the values of the Marston Introversion-Extroversion rating scale in the domain of pedagogy. More general in nature is the work of Gilliland (35), who suggests the outstanding problems of personality. Frank (29) follows Kretschmer's classifications in determining socially sanctioned patterns in terms of capacities to learn. From the theoretical point of view Prince's work (76) deserves prominent mention.

In all these studies we note a tendency to regard personality as the axial center of social psychology, with a decided preference to evaluate social behavior in terms of introversion and extraversion. These dispositions are names for integrated patterns on both the cognitive and autistic levels of mentation. A good brief statement of the definition of these types in the historical setting is set forth by Guilford and Braley (38).

*Group Psychology.* The next higher pattern integration is the group, which strict behavioristic psychology regards as a "fallacy," and which sociologists of all schools regard as a reality. The battleground is for the most part a matter of definition of terms, and methodological concepts. Much depends upon the attitude of individual students in respect to the structuralization of social psychology as a science. The problem may be formulated as follows: Are the logical methods of the natural (physical) sciences applicable to the social sciences? Very little thought has really been given to this question, although it seems to be vaguely conceived by a number of students, chiefly those possessing a thorough training in psychology.

F. H. Allport (1) takes up the case in favor of the natural science method as opposed to the historical method, and accordingly suggests that such terms as "group" and "institution" have no valid meaning for the social sciences. Lundberg (62) champions Allport's position with remarkable clearness, considering the fact that he would include all the social sciences in the application of what he considers the

"logic of sociology and social research." Lundberg argues that statistical methods promise much more than they have already done; that the prevailing ignorance of social science and an unwarranted worship of pedagogical expediency are the chief reasons for the tardy application of the logic in question.

Over against the position of both Allport and Lundberg, one must place the warning of Haldane (39) who submits that "Psychology must be regarded as a branch of knowledge which deals not with the relatively abstract aspects of experience dealt with by mathematical, physical, and biological sciences, but with the more concrete experience which is that of conscious behavior and the interest and values expressed in it" (p. 139).

As matters stand to-day, this problem of method is suspended in mid-air. When it has finally settled down, the categories of social psychology will undergo a profound readjustment, not only in respect to their relative importance as such, but also in respect to their nominal identities.

Despite the fact that the natural science method is the one and only logical procedure to employ in the explanation of most psychological phenomena, it does not apply, nor can it be applied, with strict rigidity to the entire field of social psychology in the light of the present categories of that science. Depending on the way you look at this problem of method, individuals are just as fallacious as groups. Yet both are realities. The whole problem is discussed by Markey (65) who has shown, I think, that personality is meaningless, if groups are meaningless. This work is unquestionably the most important contribution to the methodological aspects of social psychology during the period under consideration. Pertinent also to this general theme is Lundberg's (63) study of the problems of social research and Bernard's (11) statement of the development of methods in sociology; also Heard's (45) thesis that the evolution of civilization may be regarded as a series of developmental stages culminating in a superconsciousness. In a similar vein Dewey (21) argues that society is developing into a corporateness of huge dimensions and import. Eubank (23) submits that "a social group may be regarded as an entity consisting of two or more persons in active or suspended action."

Passing from the general to the more specific aspects of the psychology of group phenomena, the usual variety of studies is reported. Benedict (10) in a rather popular article shows that symbolism is connection between cultural patterns and the meaning

individuals attach to them, while Broom (14), Anderson (5), Hunt (48), and McClatchy (67) take up the question of "social intelligence," suggesting the possibilities of one day being able to tell more about the capacity of groups to assimilate the essentials of progressive culture.

Under the caption of public opinion Thurstone (88) undertakes to establish a theoretical basis for its distribution. This study should serve the important function of evaluating the work of Townsend (89), Vaught (91), Faris (25), South (81), Paget (73), Lumley (61), Sheffield (80), and Wallace (93), all of whom are concerned with the problems relating to the fluctuation of and training for social intelligence, as a factor in institutional evolution.

Among the earlier social psychologists there was a division of opinion as to the sort of influence the group had on the individual. Le Bon, for example, held that the individual suffered a loss of reasoning ability, when exposed to group influence, while McDougall held that group intelligence was superior to that of the most intelligent member of the group. Two studies revive this old question. Watson (96) finds from the small groups he studied that "most of the factors that make for efficient work as a member of a group, lie outside the range of the things we are doing in education to equip individuals to do tasks by themselves." Farnsworth (27) cannot find a consistent significant group effect.

On the question of "sympathetic induction of the emotions," which shared a place of importance equal to that of the now exploded instinct theory, in differentiating Allport from McDougall (earlier mentioned as the historical forerunners of contemporary psychosocial outlook), some minor studies deserve mention. Two studies, by Landis (56) and by Guilford (37), bear out in the main Allport's contention that the theory of sympathetic induction of the emotions is not a valid explanatory principle for interstimulation and response.

*Cultural Psychology.* Aggregates are the carriers of two sorts of stimuli for the individuals who compose the aggregates. In one case the individual is stimulated by his human situation as a member of a group of persons; in the other the individual is stimulated by the values which the aggregates entertain in respect to a common culture. There is therefore a psychological distinction (even though it be a loose one) between social psychology and cultural psychology. Stern's (82) discussion of the distinction between the social and the cultural is easily the most pointed study during the past year or two.

What is known variously as "cultural psychology" or "social



anthropology" represents the highest order of pattern formulation. Race and culture are related genetically, but tend to lose this identity in the course of social evolution. Studies by Lowie (59), Wissler (101), Malinowski (64), and Thomas and Znaniecki (86) may be taken as representative foundations for more recent investigations.

Social anthropology or cultural psychology is the most complex of all the social sciences, and not least among its components are the systematized mental attitudes which a cultural group maintains in respect to its round of life. Upon this point no one can say where social psychology may be separated from sociology. At all events psychology is indispensable for an understanding of culture, which is equivalent to wants, values, and needs (7). The problem of method here reaches its highest point of complexity. It will be many years before the natural science advocates will be able to disprove the fact that a given cultural group does not live, at least psychologically, in a world of traits which owe their origin to social and material forces operating over long periods of time. Such traits cannot be disregarded in the same fashion as a physicist may decide to ignore a few million electrons and protons because they befuddle his mathematical language too much. Consequently one trend to-day is to regard cultural groups as the units of cultural (social) psychology. As Kantor (52) well says: "Social psychology is the science of conventional reactions to institutional stimuli, and since these phenomena are inevitably connected with aggregates of individuals, the data of social psychology are *ipso facto* connected with groups" (p. 11).

The literature on cultural anthropology is voluminous and international in scope. British scholars (7) are on the whole more theoretical than are American, since the latter live at a time and in a place where a variety of cultures are rapidly passing forever beyond the reach of first-hand investigation. On the other hand, world politics in its present state encourages a search for the real mental differences between races, nations, and classes.

Faris (26) regards the whole question of race as a verbal battle merely, stressing the import of assimilation and the popular tendency to translate political facts into the language of fictitious racial traits. Garth (32, 33, 34) finds that skin, hair, and eyes are racial but mind is not, and again that intelligence is a human trait of great variability in all races. Davenport (19), Porteus (74), and Kuo (55) suggest the important factor of environmental influences in all that goes for racial intelligence, as does Thompson (87). At the same time Viteles (92) finds that inheritance cannot be disregarded altogether.

Pruette (77) suggests that race prejudice in no way resembles instinct, while Hankins (41, 42) feels that race antipathy is likely to persevere merely because of competitive contacts among races.

With the possible exception of language, religion has been the most important of all the cultural complexes found among people. Janesch (50), Flower (28), Grant (36), and Josey (51) have made important contributions to this phase of social psychology.

The Beards (8), Lowie (60), and Ellwood (22) have contributed systematic treatises on the subject of civilization and culture, showing that human history may be written in terms of the diffusion and transformation of culture.

*Recent Textbooks in Social Psychology.* The status of any evolving science at any given period is best portrayed in the work of those who attempt to systematize it from time to time for pedagogical purposes. One notices in such ventures the enormous influence of taste, interest, and temperament, as well as the weight of contemporary social problems. As Kantor (52) aptly points out, "The data of social psychology are in a peculiar sense intimately connected with one's self. Owing to this circumstance one tends to inject one's own behavior situation into the facts studied and thereby misinterprets them" (pp. 65-66).

So, too, Kinder (53) deplores the absence of scientific technique in the social sciences, ascribing the situation to the fact that each investigator is a part of the very material he would investigate. One wonders if the time may not come when a thorough sociopschoanalytical purgation may become a prerequisite for all those who would qualify as investigators.

The few textbooks which have appeared during the period under review (1928-1929) adequately illustrate this observation. Wells (97) elaborates into a text his descriptions of individual and social restraint, which seems to him to be the all-important subject-matter of social psychology. "It seems quite within the realm of possibility that civilization may be shattered by, as it were, the uneven expansion and contraction of its constituent materials" (p. v). In a similar but wider scope, Stratton (83) surmises that the all-important pedagogical need is that of "presenting to classes in college and university and to general audiences those aspects of international conduct which can best be understood with the help of social psychology" (p. vii).

In contrast with these more or less cosmopolitan views, we find definite attempts to theorize about local problems of a psychosocial

nature. Harland (43), as might be expected from a student interested in the dissemination of information to and for the working classes, emphasizes the relatively chopfallen theory of class struggle, while Murchison (70) narrowly and confusedly insists that a "description of the mere facts of inequality is all that . . . is necessary for an adequate description of social phenomena" (p. 196). Along with these Mukerjee and Sen-Gupta (71) and Ewer (24) prefer to adhere to conventional categories in their respective elementary texts, while Kantor (52) ably revives and interprets the categories of Lazarus and Steinthal, now nearly one hundred years old. In all these one finds some traces of the "Gestalt" or "configuration" psychology, which as such may be regarded as a systematization of the "pattern" psychology which, in this review, has been represented as the axiological concept in recent study and achievement.

## BIBLIOGRAPHY

1. ALLPORT, F. H., "Group" and "Institution" as Concepts in a Natural Science of Social Phenomena. *Pub. Amer. Sociol. Soc.*, 22, 83-99.
2. ALLPORT, F. H., *Social Psychology*. Boston: Houghton Mifflin, 1924. Pp. xiv+453.
3. ALLPORT, G. W., A Test for Ascendance-Submission. *J. Abnor. and Soc. Psychol.*, 23, 118-136.
4. ALLPORT, G. W., and ALLPORT, F. H., *The A-S Reaction Study*. Boston: Houghton Mifflin, 1928. Pp. 16.
5. ANDERSON, C. A., An Experimental Study of "Social Facilitation" as Affected by "Intelligence." *Amer. J. Soc.*, 34, 874-881.
6. BARTLETT, F. C., Temperament and Social Class. *Eugenics Rev.*, 20, 25-28.
7. BARTLETT, F. C., MACCURDY, J. C., ARMSTRONG, W. E., and HADDON, A. C., Social Constructiveness. *Brit. J. Psychol.*, 18, 388-404.
8. BEARD, C. and M., *The Rise of American Civilization*. (2 vols.) N. Y.: Macmillan, 1927.
9. BENDER, I. E., Ascendance-Submission in Relation to Certain Other Factors in Personality. *J. Abnor. and Soc. Psychol.*, 23, 137-143.
10. BENEDICT, R., The Science of Custom. *Century*, 117, 641-649.
11. BERNARD, L. L., The Development of Methods in Sociology. *Monist*, 38, 292-320.
12. BORING, E. G., The Psychology of Controversy. *Psychol. Rev.*, 36, 97-121.
13. BROOM, M. E., A Critical Study of a Test of Extroversion-Introversion Traits. *J. Juv. Res.*, 13, 104-123.
14. BROOM, M. E., A Note on the Validity of a Test of Social Intelligence. *J. App. Psychol.*, 12, 426-428.
15. BURGESS, E. W. (Editor), *Personality and the Social Group*. Chicago: University of Chicago Press, 1929. Pp. xii+230.
16. CAMPBELL, K. J., The Application of the Introversion-Extroversion Test to the Insane. *J. Abnor. and Soc. Psychol.*, 23, 479-481.

17. CHAPIN, F. S., *Cultural Change*. N. Y.: Century, 1928. Pp. xix+448.
18. CHASSELL, J. O., *The Experience Variables: A Study of the Variable Factors in Experience Contributing to the Formation of Personality*. University of Rochester Medical School, 1928. Pp. 14.
19. DAVENPORT, C. B., Do Races Differ in Mental Capacity? *Human Biol.*, 1, 70-89.
20. DAVIES, S. P., *Social Control of the Mentally Deficient*. N. Y.: Crowell, 1929. Pp. 408.
21. DEWEY, J., Individualism, Old and New. *New Rep.*, 61, 239-241.
22. ELLWOOD, C. A., *Cultural Evolution: A Study of Social Origins and Development*. N. Y.: Century, 1927. Pp. viii+267.
23. EUBANK, E. E., The Concept of the "Group." *Sociol. and Soc. Res.*, 12, 421-430.
24. EWER, B. C., *Social Psychology*. N. Y.: Macmillan, 1929. Pp. viii+436.
25. FARIS, E., Attitudes and Behavior. *Amer. J. Soc.*, 34, 271-281.
26. FARIS, E., The Verbal Battle of the Races. *Soc. Serv. Rev.*, 3, 19-29.
27. FARNSWORTH, P. R., Concerning So-called Group Effects. *J. Genetic Psychol.*, 35, 587-593.
28. FLOWER, J. C., *The Psychology of Religion*. N. Y.: Harcourt, Brace, 1928. Pp. xi+248.
29. FRANK, L. K., Management of Tensions. *Amer. J. Soc.*, 33, 705-736.
30. FURUKAWA, T., A Study of Temperament by Means of Human Blood Groups. *Jap. J. Psychol.*, 4, 613-634.
31. GARDNER, G. E., and PIERCE, H. D., The Inferiority Feelings of College Students. *J. Abnor. and Soc. Psychol.*, 24, 8-13.
32. GARTH, T. R., The Intelligence of Mixed Blood Indians. *J. App. Psychol.*, 11, 268-275.
33. GARTH, T. R., Racial Minds. *Psyche*, 31, 63-70.
34. GARTH, T. R., SMITH, H. W., and ABELL, W., A Study of the Intelligence and Achievement of Full-Blood Indians. *J. App. Psychol.*, 12, 511-516.
35. GILLILAND, A. R., Problems of Personality. *J. Abnor. and Soc. Psychol.*, 23, 369-378.
36. GRANT, P. McN., The Moral and Religious Life of the Individual in the Light of the New Psychology: Religious Values in Mental Hygiene. *Ment. Hyg.*, 12, 449-491.
37. GUILFORD, J. P., An Experiment in Learning to Read Facial Expression. *J. Abnor. and Soc. Psychol.*, 24, 191-202.
38. GUILFORD, J. P., and BRALEY, K. W., Extroversion and Introversion. *Psychol. Bull.*, 27, 96-107.
39. HALDANE, J. S., *The Sciences and Philosophy*. London: Hodder and Stoughton, 1929. Pp. ix+344.
40. HANKINS, F. H., Organic Plasticity versus Organic Responsiveness in the Development of the Personality. *Pub. Amer. Soc. Soc.*, 22, 43-51.
41. HANKINS, F. H., Racial Relationships and International Harmony. *World Unity*, 3, 404-416.
42. HANKINS, F. H., Racial Relationships and International Harmony. III. The Question of Racial Equality. *World Unity*, 4, 104-113.



43. HARLAND, O. H., *Some Implications of Social Psychology*. N. Y.: Knopf, 1929. Pp. vii+104.
44. HAYNER, N. S., Hotel Life and Personality. *Amer. J. Soc.*, 33, 784-795.
45. HEARD, G., *The Ascent of Humanity*. N. Y.: Harcourt, Brace, 1929. Pp. xiv+332.
46. HEWLETT, T. C., and LESTER, O. P., Measuring Introversion and Extroversion. *Person. J.*, 6, 363-369.
47. HOPKINS, P., *Father or Sons? A Study in Social Psychology*. London: Kegan Paul, Trench, Trubner & Co., 1927. Pp. xv+252.
48. HUNT, T., The Measurement of Social Intelligence. *J. App. Psychol.*, 12, 317-334.
49. HUNTER, J., and BRUNNER, A., The Emotional Outlets of Gamblers. *J. Abnor. and Soc. Psychol.*, 23, 38-39.
50. JANESCH, E., Psychological and Psycho-Physical Investigations of Types in Their Relation to the Psychology of Religious Feelings and Emotions. Worcester: Clark University Press, 1928. *Wittenberg Symposium*, pp. 355-371.
51. JOSEY, C. C., *The Psychology of Religion*. N. Y.: Macmillan, 1928. Pp. xi+362.
52. KANTOR, J. R., *An Outline of Social Psychology*. Chicago: Follett, 1929. Pp. xiv+420.
53. KINDER, E. F., A Scientific Method in Social Psychology. *J. Abnor. and Soc., Psychol.*, 24, 63-73.
54. KÜNKEL, F., *Let's Be Normal!* (Translated by Eleanore Jensen.) N. Y.: Ives Washburn, 1929. Pp. xxxviii+299.
55. KUO, Z. Y., The Net Result of the Anti-heredity Movement in Psychology. *Psychol. Rev.*, 36, 181-199.
56. LANDIS, C., The Interpretation of Facial Expression in Emotion. *J. Gen. Psychol.*, 2, 59-72.
57. LEHMAN, H. C., Some Compensatory Mechanisms of the Negro. *J. Abnor. and Soc. Psychol.*, 23, 28-37.
58. LOUKAS, C., Consciousness of Kind Among University Students. *Soc. Forces*, 7, 385-388.
59. LOWIE, R. H., *Culture and Ethnology*. N. Y.: McMurtrie, 1917. Pp. 189.
60. LOWIE, R. H., *Are We Civilized?* N. Y.: Harcourt, Brace, 1929. Pp. xiii+306.
61. LUMLEY, F. E., Nature of Propaganda. *Sociol. and Soc. Res.*, 13, 315-324.
62. LUNDBERG, G. A., *The Logic of Sociology and Social Research*. Chapter X of Trends in American Sociology by Lundberg, Anderson, Bain, and others. N. Y.: Harper's, 1929. Pp. xii+443.
63. LUNDBERG, G. A., *Social Research*. N. Y.: Longmans, Green, 1929. Pp. 195.
64. MALINOWSKI, B., *Myth in Primitive Psychology*. N. Y.: Norton, 1926. Pp. ix+94.
65. MARKEY, J. F., *The Symbolic Process and Its Integration in Children: A Study in Social Psychology*. N. Y.: Harcourt, Brace, 1928. Pp. xii+192.
66. MARKEY, J. F., *Trends in Social Psychology*. Chapter III of Trends in

- American Sociology by Lundberg, Bain, Anderson, and others. N. Y.: Harper's, 1929. Pp. xii+443.
67. McCLATCHY, V., A Theoretical and Statistical Critique of Social Intelligence. *J. Abnor. and Soc. Psychol.*, 24, 217-220.
  68. McDougall, W., The Chemical Theory of Temperament Applied to Introversion and Extroversion. *J. Abnor. and Soc. Psychol.*, 24, 293-309.
  69. McDougall, W., *An Introduction to Social Psychology*. 13th ed. Boston: Luce, 1918. Pp. 398.
  70. MURCHISON, C., *Social Psychology: The Psychology of Political Domination*. Worcester: Clark University Press, 1929. Pp. x+210.
  71. MUKERJEE, R., and SEN-GUPTA, N. N., *Introduction to Social Psychology: Mind in Society*. Boston: D. C. Heath & Co., 1928. Pp. xv+304.
  72. NEYMANN, C. A., and KOHLSTEDT, K. D., A New Diagnostic Test for Introversion-Extroversion. *J. Abnor. and Soc. Psychol.*, 23, 482-487.
  73. PAGET, E. H., Sudden Changes in Group Opinion. *Soc. Forces*, 7, 438-444.
  74. PORTEUS, S. D., The Social Psychology of the Australian Aboriginal. *J. App. Psychol.*, 13, 131-144.
  75. POWERS, N. E., An Application of the Marston Introversion-Extroversion Rating Scale. *J. Educ. Psychol.*, 19, 168-174.
  76. PRINCE, M., Why We Have Traits—Normal and Abnormal. The theory of integration of dispositions. *J. Abnor. and Soc. Psychol.*, 23, 422-433.
  77. PRUETTE, L., The Instinct (?) of Race Prejudice. *World Tomorrow*, 11, 304-305.
  78. RICH, G. J., A Biochemical Approach to the Study of Personality. *J. Abnor. and Soc. Psychol.*, 23, 158-175.
  79. RIDDLE, E. M., Stealing as a Form of Aggressive Behavior. *J. Abnor. and Soc. Psychol.*, 23, 79-93.
  80. SHEFFIELD, A. D., *Training for Group Experience*. N. Y.: The Inquiry, 1929. Pp. xv+105.
  81. SOUTH, E. B., Some Psychological Aspects of Committee Work. *J. App. Psychol.*, 11, 348-368.
  82. STERN, B. J., Concerning the Distinction Between the Social and the Cultural. *Soc. Forces*, 8, 264-271.
  83. STRATTON, G. M., *Social Psychology of International Conduct*. N. Y.: Appleton, 1929. Pp. viii+387.
  84. TERRY, G. C., A Study of Psycho-Dynamic Patterns. *Amer. J. Psychiat.*, 8, 881-899.
  85. THOMAS, W. I., The Behavior Pattern and the Situation. *Pub. Amer. Soc. Soc.*, 22, 1-13.
  86. THOMAS, W. I., and ZNANIECKI, F., *The Polish Peasant in Europe and America*. (2 vols.) N. Y.: Knopf, 1927.
  87. THOMPSON, C. H., The Educational Achievements of Negro Children. *Ann. Amer. Acad. Pol. and Soc. Sci.*, 140, 193-208.
  88. THURSTONE, L. L., The Measurement of Opinion. *J. Abnor. and Soc. Psychol.*, 22, 415-430.
  89. TOWNSEND, H. G., A Persistent Motive for Social Organization. *J. Philos.*, 26, 141-150.

90. VAUGHAN, W. F., *The Lure of Superiority*. N. Y.: Holt, 1928. Pp. viii+307.
91. VAUGHT, E., The Release and Heightening of Individual Reactions in Crowds. *J. Abnor. and Soc. Psychol.*, 22, 404-405.
92. VITELES, M. S., The Mental Status of the Negro. *Ann. Amer. Acad. Pol. and Soc. Sci.*, 140, 166-177.
93. WALLACE, W. K., *The Scientific World View*. N. Y.: Macmillan, 1928. Pp. 328.
94. WALSH, W. S., *The Inferiority Feeling*. N. Y.: Dutton, 1928. Pp. ix+381.
95. WALTHER, A., Socialpsychologie. *Arch. Sozialwissenschaft und Sozialpolitik*, 62, 163-171.
96. WATSON, G. B., Do Groups Think More Efficiently than Individuals? *J. Abnor. and Soc. Psychol.*, 23, 328-336.
97. WELLS, G. R., *Individuality and Social Restraint*. N. Y.: Appleton, 1929. Pp. vii+248.
98. WEXBERG, E., *Individual Psychology*. (Translated by Beran Wolfe.) N. Y.: Cosmopolitan Book Corporation, 1929. Pp. viii+428.
99. WHITMAN, R. H., A Short Scale for Measuring Introversion-Extroversion. *J. App. Psychol.*, 13, 499-504.
100. WHITMAN, R. H., Sex and Age Differences in Introversion-Extroversion. *J. Abnor. and Soc. Psychol.*, 24, 207-211.
101. WISSLER, C., *Man and Culture*. N. Y.: Crowell, 1923. Pp. xi+371.
102. YOUNG, K., The Measurement of Personal and Social Traits. *J. Abnor. and Soc. Psychol.*, 22, 431-442.

## RECENT STUDIES IN SEX DIFFERENCES

BY C. N. ALLEN

*Columbia University*

I. *General.* Since 1927, the field here to be reviewed has opened up at an increasingly rapid rate. A good beginning can be made with Langdon-Davies' popular chapter on the "history of human ideas about sex differences" (79). Five factors are cited as causing the myth of the "female character," and a prophecy of the future of womankind is attempted. Sumner and Keller (124) present a vast amount of carefully gathered and documented data on the social side of sexual relations, especially in primitive man. Briffault (21), a British anthropologist, offers extensive and exhaustive documentation for his thesis that the basis of human culture lies in the primitive sentiments about woman in her reproductive capacity; his three volumes contain approximately 2,300 pages. Bauer (10, 11), a Viennese gynecologist, tries to prove that sex determines all of woman's actions, no matter how trivial, from birth to death, citing many references in his study of the physical, mental, sexual, and erotic aspects of feminine life. Scheuer (113) offers a historical contribution to the psychology of sex. Heilbron (60) believes woman to be inferior, "above all in the central organ, the brain." A good bibliography of titles, from classical literature to modern experiment, is found in Weith-Knudson's popular book (128). The feminist note is represented in such studies as that by Kennedy (76), using a Japanese setting.

Turning to bibliographical studies, it will be unnecessary to more than mention the following: Allen (2), Ellis (44), Lincoln (86), Louttit (88, 89), Scheuer (114, 115), and Woody (135); these give the careful student the key to the better material. In addition, Goodenough's (54) statement of a program for future research, together with a short summary of some studies in this field, is important and stimulating. Current work on sex differentiation and sex determination in animals is reported in such periodicals as the *J. of Exper. Zoölogy* and the *Biol. Bull.* for 1928 and 1929 especially.

II. *Physical Differences.* Anatomical studies may be passed over rapidly in favor of studies of behavior differences. Over one thou-



sand female students at a state university have been measured by Jackson (74), emphasizing body-build and vital capacity. Kjer-rulf (77) contributes height and weight measures on 1,244 Swedish children between seven and fourteen years of age. Heart action (87), bone growth (112), myopia (119), and growth of head-form (133, 134) have all been subjects for careful study. They are not here discussed, but the references given briefly abstract the source material.

We shall find more of interest in the studies of the *functional* differences. An insight into the problems involved is to be found in the Russian Bielov's (12) book; in such physiological studies as that of Boyden (17) on the gall-bladder; in the endocrine studies of which that of Herschan (62) is representative, claiming to have isolated the factors responsible for women with masculine characteristics. Butenandt (27) is said to have been the first to isolate the sex hormone in its pure form; he calls it "Progynon," and describes it as a stearate.

The *animal* work is important. Allen (3) cites sex differences in monkeys, reviewing the experimental literature also. A more extensive study of the "genetics of sexuality in animals" is offered by Crew (36). Nisson (98) lists the work that has been done on the white rat, using operative techniques; Riddle and Reinhart (110) approach the problem from its more chemical aspect. Hitchcock (65) finds the female white rat more active than the male.

Studies of the effects of *menstruation* upon the behavior and status of woman have been sharply divided into the experimental and the psychoanalytic. A plea for a more careful study of menstrual concomitants (6) seems to overlook the work already done by Clow (31), Conklin, Byrom, and Knips (33), etc., who stress the effects of suggestion and expectancy. On the other hand, the study of the so-called "menstruation psychosis" by Prengowski (107) and by Danby and Sykes (40), among others, leaves the matter unsettled so far as experimental evidence is concerned. The careful study of puberty precox by Gesell (53), and of the cycle in general by Sowton, Myers, and Bedale (121), give more assuring answers to the questions raised, and leave one with the conclusion that menstruation, in the average woman, *need* not incapacitate her for industry or professional pursuits. The fact that it frequently *does* is minor to this generalization, which is supported by experimental research.

The psychoanalytic method is seen in studies by Daly (38, 39), who assumes a phylogenetic factor in feminine inferiority, based on the menstruation tabus. Hirschmann-Wertheimer (64) finds two

types of reaction to menstruation. In these studies, the analytic concepts have been freely used, and must be evaluated in the light of one's attitude toward those concepts.

III. *Mental Differences.* Bühler (25) discusses sex differences, considering different phases of maturity as the decisive factor. Chesser (29) offers a book to help woman understand "her inter-related physical and spiritual forces." The recent revision of Ellis' *Man and Woman* (43) needs no further comment. In addition, the stimulating work of Kelley (75), attempting to determine quantitatively any mental traits that may exist between the sexes, must be mentioned.

1. The first of the special psychological problems, the changing *moral standards*, is examined by Emery (45). Many articles discuss the implications of moral evaluation and character, as in Valentine (125) on judgments of character, and Banning (8), reflecting "modern" ideas.

2. *Interests and drives* are favorite topics for study. An exhaustive study of the entire range of interests and activities of women, compiled by Clarke, etc. (30), is enlightening. More experimental in tone is the study of color preferences of white and negro children by Hurlock (69), and of Japanese adults by Mizuguchi and Aoki (96). Imada (73) found marked sex differences, but not in agreement with either of the above. Age and race factors in these studies confuse the issue, however. Lehman and Witty (81, 82) have shown girls to demonstrate esthetic appreciation more clearly, and also to show a greater fondness for, and time spent at, reading for pleasure. In studying the data of an art test given to a thousand unselected grammar-school children, Lewerenz (85) found that the girls excelled in originality and color recognition, but that the boys excelled in art vocabulary, in visual memory of proportion, observation, etc.

3. The great mass of studies relating to *cognitive functions* may be divided into two groups: tests of intelligence, grades, etc., and tests of learning and memory, primarily.

Paterson and Langlie (101), after pointing out that much of the past literature has shown boys to excel girls on intelligence scores, also assert that new techniques of examination—more objective in nature—reduce the discrepancies between intelligence scores and grades, in the latter of which girls excel boys. The thesis is put forth that these scholarship differences are pseudo-differences. Crawford (35) says that girls study more, attend more regularly,

and do better in all save mathematics. Frailey and Crain (51) declare that girls also prepare their lessons better. Several studies, however, present conflicting data. Boys surpass girls on the intelligence tests given by Paterson and Langlie (101), Whipple (130), and by Schultz (117). On the other hand, Goodenough (55) finds that boys, on the average, are poorer on a first Binet test, but that the girls lose ground on a retest. Lentz (83) found that only 42 per cent of the girls tested surpassed the median for boys, while 58 per cent surpassed the median for boys in grades. Whipple (129, 130) cites the results of two testings, in each of which the girls outdid the boys, in all deciles in the one case, and at all ages between eight and thirteen years in the other. But add to the many possible interpretations of these conflicting data the fact that many find no significant sex differences, and the problem is still an open one. Crawford (35) and Davis (41) indicate this position.

There is much more agreement as to achievement in the specific subjects of study. Boys are generally conceded a superiority in things mathematical and concrete; girls in language work, memory, and abstract reasoning. Yet the case is not at all clear. As far geometry, Webb (127) represents the usual finding that boys surpass girls, and especially at the lower MA levels. Perry (104) disagrees, holding that girls attain higher achievement because they are able to jump some steps in reaching the conclusion, which seems to be beyond the average boy tested. In adding, Pauli (102) finds that boys always excell in the original performance, but that girls improve more to cut down this initial advantage. Porter (106) shows that girls are more upset by emotional factors, due to accumulative errors of which they are said to be more aware.

*Motor learning* has hitherto shown large sex differences (as in the Young slot maze, *e.g.*). McGinnis (94) agrees that boys from four to eight years of age are markedly superior to the "man-and-show" maze, also that practice again favors the girls. This agrees with earlier studies which have found no sex differences in motor coördination, and with Goodenough and Brian (56) who find girls gain more by practice in target shooting. McGeoch (93) finds no large differences, in any of the literature. Husband and Miles (71) find women sort cards faster, both for color and form. Ilyinsky (72) gets a slow and unstable associative reflex in males, and a faster and more persistent one in females. Neubauer (97) suggests that boys are a year ahead of girls in making mechanical toys that function

well, and in adding the technical details to their drawings. Interest factors are obviously present here.

In tests of immediate *memory*, Fischler and Ullert (47) find no great sex differences, using five tests on 450 children and 80 adults. Fisher (48) finds that boys excel at substitute learning at nine, ten, fourteen, and fifteen years; girls at twelve, thirteen, and sixteen years. The improvement curves are different also. Foster (50) finds boys consistently better at verbal memory for stories; this was an unexpected result, inasmuch as the girls had done better on the intelligence test. In history retention, Bassett (9) finds boys slightly better on concrete facts and principles, while girls reflect their greater interest in home life and living conditions. Burt and Crockett (26) find no significant sex differences in recall or recognition of billboards.

Finally, the psychology of testimony, as McGeoch (92) reports, shows that girls are slightly better on picture reports, and much better on event reports. Bird (14) shows the effects of suggestion, as the most important fact in a review of the literature. Miles and Terman (95) incline to regarding them as due to social conditioning. Seward (118) finds no reliable sex differences in speed or relative variability of recognition times, although women as a group rated their self-confidence higher than did the men.

Studies of *ideation* have been made by Miles and Terman (95), who find women more introverted and hence more inclined to the evaluating type of associative response. Wylie (136) reports no sex differences in ideation, and Pyle (109) finds that they diminish with age, especially as compared with motor skills. Griffiths (57) finds very small, though consistent, sex differences in imagery—women better in auditory, and men better in visual; a finding which agrees with much of the earlier data. Eidetic imagery studies seem to agree that females show a higher amount of eidetic imagery than males. Studies by Zeman (137) and by Fischer and Hirschberg (46) are examples of such findings.

4. Greater *variability* has been claimed for each sex at different times. Cf. Allen (2). Frailey and Crain (51) and Commins (32) find boys more variable. The former attribute this to the greater freedom of conduct of boys. However, the matter may best be left with reference to Winsor's survey of the literature (132); he concludes that girls are as variable as boys whenever a large enough sample of a given age has been tested.

5. Women are consistently reported to be more *suggestible* and



*emotionally unstable*. Heron (61) shows women to be more liable to illusory warmth in his experiments. Bridges (18) claims to find greater emotional instability in college women than in college men, tested by the Woodworth Personal Data Sheet. Lehman and Witty (80) find women more credulous regarding fortune-telling. Levy (84) reports the greatest proportion of resistant behavior in young children under four years of age to come at thirty months in males and eighteen months in females.

The school side of the problem is found in Bridgman's (20) analysis of mental defectives coming to a public clinic. In almost 4,000 cases there were slightly more male idiots and female imbeciles; but many more female morons and more dull and borderline males. It is suggested that the Binet scale may exaggerate sex differences, due to social elements. The incidence of truancy shows more boys at thirteen years and more girls at fifteen years of age (131).

The psychiatric angle to this problem is outlined by Pollock (105), who suggests that there are characteristic age and sex groups for each psychosis, with wide interrelations, however. Psychoanalytic studies by Stadelmann (122), Schilder (116), and Horney (67), and another group relating more to the early formation of personality, include studies by Aikins (1) on the masculine protest, Ceni (28) on the maternal impulse, and Freud (52) on the "castration complex."

6. The more orthodox studies of *personality* differences are those by Allport (4), and by Huntington (68). The latter lists natural selection through migration, geographic conditions, and the overstimulation of some social areas, as the causes of the "uniqueness" of the modern American woman. The extraversion-introversion dichotomy is reported upon by Broom (22), and by Heidbreder (59). The former found no appreciable sex differences; the latter, however, lists certain differences that appear independently of introversion-extraversion.

7. Only one recent serious study of sex differences in *handwriting* is at hand. Broom, Thompson, and Bouton (23) report that untrained judges were able to determine correctly the sex of the writers about two times out of three.

8. *Industry* to-day presents an everchanging front to the woman employee. The Woman's Bureau literature, U. S. Department of Labor (24), shows the mass of information to be had. The chief of the bureau (5) has summarized the program, elsewhere. In contrast with this type of work is the platform of absolute equality demanded by the "Open Door International," founded in Berlin

in 1929 by feminists who were scornful of special legislation for women. However, the majority of trade union and Socialist women are opposed to this new extremist doctrine (37). Much of this literature is in the opinion stage. Symposia (63) have been published, questionnaire data from Y.W.C.A. working girls compiled (99), and the pros and cons argued (42). Reasons why women want to work have been suggested by Groves (58). A more direct attack on this problem is Hogg's analysis of occupational interests of women (66), together with a suggestive study by Bridges (19) on occupational interests of three-year-old children, as revealed by the Montessori materials. Slight sex differences are found agreeing with traditional opinion.

When women do enter business or industry, Bills (13) finds the sexes differ only slightly in length of service. A preliminary study of woman taxi drivers by Viteles and Gardner favored the women. In a later study (126), other variables were controlled, and men were found superior only in training. Women ran up more, but less serious, accidents than did the men.

9. Closely allied to changing attitudes toward women in business and industry, are the changes in the *social life* of the sexes. Banning's (8) article summarizes the popular statements of one phase. Flügel (49) gives six reasons why male "homosociality" is the more highly developed, at the same time pointing out that differences are diminishing in favor of a more "heterosocial trend." Attitudes toward other races (15) reveal some interesting sex differences, pointing out that mistakes in judgment are often more costly to women. Pan (100) and Pedersen (103) show attitudes toward the institution of marriage, and ideals of the proper mate for a woman. In a recent book, Hurlock (70) sums up many facts regarding display, and the differences in masculine and feminine fashions, as they effect social living.

10. Finally, brief mention may be made of the various ideas regarding the *logic* and *intuition* of women. Macy (90) summarizes them popularity. Rodier (111) finds that any such differences are superficial, but that the biological basis is apparent: man's psychology is of the brain; woman's is intuitional and superior to male logic, which is often baffled by the maze of facts to be sorted. In discrimination tests, Kubo (78) cites small differences. Women do better in estimating how much symbol substitution they can do in a fixed time. No sex differences in accuracy were reported.

IV. *Conclusion.* In summing up, there seems no good ground

for changing the three conclusions drawn at the end of a similar study in 1927 (2). They are, therefore, here repeated:

1. Few, if any, of the so-called "sex differences" are due solely to sex. Individual differences usually are greater than differences determined on the basis of sex.

2. The social training of the two sexes is, and always has been, different, producing differential selective forces, interests, standards, etc.

3. A number of variables either cannot be, or are not, controlled, making conclusions uncertain. Among other improvements, a more careful definition of terms is needed.

#### BIBLIOGRAPHY

1. AIKINS, H. A., Woman and the Masculine Protest. *J. Abn. & Soc. Psych.*, 1927, 22, 259-272.
2. ALLEN, C. N., Studies in Sex Differences. *Psychol. Bull.*, 1927, 24, 294-304.
3. ALLEN, E., Sex Characteristics in Monkeys. *Proc. Soc. Exper. Biol. & Med.*, 1928, 25, 325-327.
4. ALLPORT, F. H., Seeing Women as They Are. *Harper's Mag.*, 1929, 397-408.
5. ANDERSON, M., Importance of Women in Industry. *Personnel J.*, 1928, 6, 329-330.
6. ANONYMOUS, A Plea for the Study of Menstrual Concomitants. *Med. J. & Rec.*, 1929, 130, 106-107.
7. ANONYMOUS, Zur Frage der Biologischen Wirkungen des Frauenstudiums. *Zeit. f. Sexwiss.*, 1929, 16, 352-353. (Cf. *Psychol. Abstr.*, 1930, 4, No. 178.)
8. BANNING, M. C., Lit Ladies. *Harper's Mag.*, 1930, 161-169.
9. BASSET, S. J., Sex Differences in History Retention. *Sch. & Soc.*, 1929, 29, 397-398.
10. BAUER, B. A., *Woman and Love*. N. Y.: Boni & Liveright, 1927. 2 vols. Pp. 353 and 396.
11. BAUER, B. A., *Woman. A Treatise on the Anatomy, Physiology, and Sexual Life of Woman*. Trans. London: Cope, 1927.
12. BIELOW, V. D., *Peculiarities of Physical and Mental Efficiency of Women in Relation to Their Physiology*. State Publ. House, Kazan, U. S. S. R.
13. BILLS, M. A., Permanence of Men and Women Office Workers. *J. Person. Res.*, 1927, 5, 402-404.
14. BIRD, C., The Influence of the Press upon Accuracy of Report. *J. Abn. & Soc. Psychol.*, 1927, 22, 123-129.
15. BOGARDUS, E. S., Sex Differences in Racial Attitudes. *Sociol. & Soc. Res.*, 1928, 12, 279-285.
16. BOOK, W. F., and MEADOWS, J. L., Sex Differences in 5,925 High School Seniors in Ten Psychological Tests. *J. Appl. Psychol.*, 1928, 12, 56-81.
17. BOYDEN, E. A., Sex Differences in the Contraction Rate of the Human

- Gall Bladder. *Proc. Soc. Exper. Biol. & Med.*, 1927, 24, 353-358. (Cf. *Psychol. Abstr.*, 1928, 2, No. 1781.)
18. BRIDGES, J. W., Emotional Instability of College Students. *J. Abn. & Soc. Psychol.*, 1927, 22, 227-234.
  19. BRIDGES, K. M. B., Occupational Interests of 3-Year-Old Children. *Ped. Sem. & J. Genet. Psychol.*, 1927, 34, 415-423.
  20. BRIDGMAN, O., The Sex of Mentally Defective Individuals. *Ment. Hyg.*, 1929, 13, 62-69.
  21. BRIFFAULT, R., *The Mothers*. N. Y.: Macmillan, 1927. 3 vols. Pp. xix+781, xx+789, and xv+841.
  22. BROOM, M. E., A Critical Study of a Test of Extroversion-Introversion Traits. *J. Juven. Res.*, 1929, 13, 104-123.
  23. BROOM, M. E., THOMPSON, B., and BOUTON, M. T., Sex Differences in Handwriting. *J. Appl. Psychol.*, 1929, 13, 159-166.
  24. BROWN, E. C., *Selected References on the Health of Women in Industry*. U. S. Dept. Labor, Women's Bureau, Bull. No. 71, 1929. Pp. 8.
  25. BÜHLER, CH., Das Problem der Differenz der Geschlechter. *Dtsch. Mädchenbildung*, 1927, 3, 388 ff. (Cf. *Psychol. Abstr.*, 1928, No. 1519.)
  26. BURTT, H. E., and CROCKETT, T. S., A Technique for Psychological Study of Poster Board Advertisements, and Some Preliminary Results. *J. Appl. Psychol.*, 1928, 12, 43-55.
  27. BUTENANDT, M., Note. (No title.) *Science*, Dec. 14, 1929.
  28. CENI, C., Über die Verwandlung des Geschlechtstriebes in den Muttertrieb beim Weibchen und beim Männchen. Experimentelle Untersuchungen. *Zeit. f. sex-wiss. u. sex. pol.*, 1929, 16, 1-7.
  29. CHESSEB, E. S., *The Woman Who Knows Herself*. N. Y.: Dutton, 1929. Pp. 111.
  30. CLARKE, I. C. (Ed.), *Women of Today*. N. Y.: Women of Today Press, 1928-1929 edition. Pp. 356.
  31. CLOW, A. E., Treatment of Disturbances Incidental to Early Menstrual Life. *Lancet*, 1928, 214, 460-461.
  32. COMMINS, W. D., More About Sex Differences. *Sch. & Soc.*, 1928, 28, 599-600.
  33. CONKLIN, E. S., BYROM, M. E., and KNIPS, A., Some Mental Effects of Menstruation. *Ped. Sem. & J. Genet. Psychol.*, 1927, 34, 357-367.
  34. CORNELL, E. L., Why Are More Boys than Girls Retarded in School? *Elem. School J.*, 1928, 29, 96-106, 213-226.
  35. CRAWFORD, C. C., Some Comparisons of Freshmen Boys and Girls. *Sch. & Soc.*, 1926, 24, 494-496.
  36. CREW, F. A. E., *The Genetics of Sexuality in Animals*. N. Y.: Macmillan, 1927. Pp. 188.
  37. (Clipping), "Labor Is Divided on Sex Equality." *N. Y. Times*, February 23, 1930.
  38. DALY, C. D., Hindu-Mythologie und Kastrations-komplex. *Imago*, 1927, 13, 145-198.
  39. DALY, C. D., Der Menstruationskomplex. *Imago*, 1928, 14, 11-75.
  40. DANBY, A., and SYKES, K., Chronic Mental Disease Associated with Ovarian Dysfunction. *Lancet*, 1929, 216, 129.



41. DAVIS, R. A., Sex Differences Among Orphan Children. *J. Delinq.*, 1928, 12, 133-143.
42. EHRENSTEIN, W., Die Psychischen Geschlechtsunterschiede. *Umschau*, July 30, 1927. (Cf. *Psychol. Abstr.*, 1928, 2, No. 1849.)
43. ELLIS, H., *Man and Woman: A Study of Secondary Sexual Characteristics*. London: Black, 1926. 6th ed., Pp. xxiii+563.
44. ELLIS, R. S., *The Psychology of Individual Differences*. N. Y.: Appleton, 1928. Pp. xxiii+533.
45. EMERY, E. v. N., Revising Our Attitude Toward Sex. *Ment. Hyg.*, 1927, 11, 324-338.
46. FISCHER, S., and HIRSCHBERG, H., Die Verbreitung der eidetischen Anlage im Jugendalter und ihre Beziehungen zu körperlichen Merkmalen. *Zeit. f. d. ges. Neur. u. Psychiat.*, 1924, 88.
47. FISCHLER, D., and ULLERT, I., Contribution à l'étude des tests de mémoire immédiate. *Arch. de Psychol.*, 1929, 21, 293-306.
48. FISHER, V. E., A Few Notes on Age and Sex Differences in Mechanical Learning. *J. Educ. Psychol.*, 1927, 18, 562-564.
49. FLÜGEL, J. C., Sexual and Social Sentiments. *Brit. J. Med. Psychol.*, 1927, 7, 139-176.
50. FOSTER, J. O., Verbal Memory in the Preschool Child. *Ped. Sem. & J. Genet. Psychol.*, 1928, 35, 26-44.
51. FRAILEY, L. E., and CRAIN, C. M., Correlation of Excellence in Different School Subjects Based on a Study of School Grades. *J. Educ. Psychol.*, 1914, 5, 141-154.
52. FREUD, S., Some Psychological Consequences of the Anatomical Distinction Between the Sexes. *Inter. J. Psychoan.*, 1927, 8, 133-142.
53. GESELL, A., The Influence of Puberty Praecox Upon Mental Growth. *Genet. Psychol. Monog.*, 1926, 1, No. 6, 507-539.
54. GOODENOUGH, F. L., The Consistency of Sex Differences in Mental Traits at Various Ages. *Psychol. Rev.*, 1927, 34, 440-462.
55. GOODENOUGH, F. L., *The Kuhlman-Binet Tests for Children of Preschool Age*. Minn.: Univ. Minn. Press, 1928. Pp. viii+146.
56. GOODENOUGH, F. L., and BRIAN, C. R., Certain Factors Underlying the Acquisition of Motor Skill by Preschool Children. *J. Exper. Psychol.*, 1929, 12, 127-155.
57. GRIFFITHS, C. H., Individual Differences in Imagery. *Psychol. Rev. Monog. Series*, 1927, No. 172. Pp. 91.
58. GROVES, E. R., The Psychology of the Woman Who Works. *Family*, 1927, 8, 92-97.
59. HEIDBREDER, E., Introversion and Extroversion in Men and Women. *J. Abn. & Soc. Psychol.*, 1927, 22, 52-61.
60. HEILBRON, A., *The Opposite Sexes: A Study of Woman's Natural and Cultural History*. London: Methuen, 1927. Pp. viii+152.
61. HERON, W. T., The Group Demonstration of Illusory Warmth as Illustrative of the Phenomenon of Suggestion. *J. Abn. & Soc. Psychol.*, 1927, 22, 341-344.
62. HERSCHAN, O., Die weibliche Intersexualität. *Zeit. f. sex-wiss.*, 1928, 14, 401-406.

63. HINKLE, B. M., WATSON, J. B., and COLLINS, J., Explaining Women. *Nation*, 1927, 125, 8-11.
64. HIRSCHMANN-WERTHEIMER, I., Wechselseitige Beziehungen von Menstruation und Psyche. *Monatsschr. f. Psychiat. u. Neur.*, 1927, 66, 215-254. (Cf. *Psych. Abstr.*, 1928, 2, No. 3120.)
65. HITCHCOCK, F. A., Studies of Vigor. V. The Comparative Activity of Male and Female Albino Rats. *Amer. J. Physiol.*, 1926, 75, 205-210.
66. HOGG, M. I., Occupational Interests of Women. *Personnel J.*, 1928, 6, 331-337.
67. HORNEY, K., Der Männlichkeitskomplex der Frau. *Arch. f. Frauenkd. u. Konst.*, 1927, 13, 141-154. (Cf. *Psychol. Abstr.*, 1928, 2, No. 3121.)
68. HUNTINGTON, E., Why the American Woman Is Unique. *Nation*, 1927, 125, 105-107.
69. HURLOCK, E. B., Color Preferences of White and Negro Children. *J. Comp. Psychol.*, 1927, 7, 389-404.
70. HURLOCK, E. B., *The Psychology of Dress*. N. Y.: Ronald Press, 1929. Pp. viii+244.
71. HUSBAND, R. W., and MILES, W. R., On Sorting Packs of 60 Cards with Form and Color as Variables in 2-6 Kinds. *J. Appl. Psychol.*, 1927, 11, 465-482.
72. ILYINSKY, P. J., [On the Correlation of the Facilitative and Inhibitive Processes in the Formation of Associative Motor Reflexes in Adolescent Children. *Prob. in the Study of Educ. and Personality*], 1927, No. 1, 21-25. (Cf. *Psychol. Abstr.*, 1927, 1, No. 2482.)
73. IMADA, M., Color Preferences of School Children. *Jap. J. Psychol.*, 1926, 1, 1-21.
74. JACKSON, C. M., Physical Measurement of the Female Students at the University of Minnesota, with Special Reference to Body-Build and Vital Capacity. *Amer. J. Phys. Anthropol.*, 1929, 12, No. 3. (Cf. *Child Dev. Ab. & Bibliog.*, 1929, No. 259.)
75. KELLEY, T. L., *Crossroads in the Mind of Man*. Stanford Univ. Press, 1928. Pp. vii+238.
76. KENNEDY, M. D., Some Forces Behind the Woman's Movement in Japan. *19th Cent.*, 1928, 104, 161-175.
77. KJERRULF, H. [Results from the Height and Weight Measurements Taken in February, 1927, at Adolph Frederik's Grade School, Stockholm.] *Svenska Lakartidn*, 1927, 24, 323-325. (Cf. *Psychol. Abstr.*, 1927, 1, No. 1437.)
78. KUBO, Y. [On the Results of the Discrimination Tests.] *Jido Kenkyu-sho Kiyu*, 1928, 9, 1-14. (Cf. *Psychol. Abstr.*, 1929, 3, No. 1307.)
79. LANGDON-DAVIES, J., *A Short History of Women*. N. Y.: Viking Press, 1927. Pp. xiv+382.
80. LEHMAN, H. C., and WITTY, P. A., Sex Differences in Credulity. *J. Abn. & Soc. Psychol.*, 1928, 23, 356-368.
81. LEHMAN, H. C., and WITTY, P. A., Play Interests as Evidence of Sex Differences in Aesthetic Appreciation. *Amer. J. Psychol.*, 1928, 40, 449-457.

82. LEHMAN, H. C., and WITTY, P. A., Sex Differences in Reading Books Just for Fun. *Educ.*, 1928, 48, 602-617.
83. LENTZ, T. F., Sex Differences in School Marks with Achievement Test Scores Constant. *Sch. & Soc.*, 1929, 29, 65-68.
84. LEVY, D. M., A Method of Integrating Physical and Psychiatric Examination. *Amer. J. Psychiat.*, 1929, 9, 121-194.
85. LEWERENZ, A. S., Sex Differences in Ability Tests in Art. *J. Educ. Psychol.*, 1928, 19, 629-635.
86. LINCOLN, E. A., *Sex Differences in the Growth of American School Children*. Baltimore: Warwick & York, 1927. Pp. 109.
87. LOMBARD, W. P., and COPE, O. M., Sex Differences in Heart Action. *Amer. J. Physiol.*, 1927, 83, 37-46. (Cf. *Psychol. Abstr.*, 1928, 2, No. 618.)
88. LOUITT, C. M., Bibliography of Bibliographies on Psychology. *Natl. Res. Council*, 1927, Bull. No. 65. Pp. 108.
89. LOUITT, C. M., The Use of Bibliographies in Psychology. *Psychol. Rev.*, 1929, 36, 341-347.
90. MACY, J., Logic and the Ladies. *Harper's Mag.*, 1928, 722-730.
91. MCGEOCH, J. A., Memory. *Psychol. Bull.*, 1928, 25, 513-549.
92. MCGEOCH, J. A., The Influence of Sex and Age upon the Ability to Report. *Amer. J. Psychol.*, 1928, 40, 458-466.
93. MCGEOCH, J. A., The Acquisition of Skill. *Psychol. Bull.*, 1929, 26, 457-498.
94. MCGINNIS, E., The Acquisition and Interference of Motor Habits in Young Children. *Genet. Psychol. Monog.*, 1929, 6, 203-311.
95. MILES, C. C., and TERMAN, L. M., Sex Differences in the Association of Ideas. *Amer. J. Psychol.*, 1929, 41, 165-206.
96. MIZUGUCHI, F., and AOKI, S., Color Preferences of Adults. *Jap. J. Psychol.*, 1926, 1, 22-33.
97. NEUBAUER, V. E., Über die Entwicklung der technischen Begabung bei Kindern. *Zeit. f. angew. Psychol.*, 1927, 29, 289-336. (Cf. *Psychol. Abstr.*, 1928, 2, No. 2598.)
98. NISSON, H. W., The Effects of Gonadectomy, Vasotomy, and Injections of Placental and Orchic Extracts on the Sex Behavior of the White Rat. *Genet. Psychol. Monog.*, 1929, 5, 455-550.
99. ORMSBEE, H. G., *The Young Employed Girl*. N. Y.: Woman's Press, 1927. Pp. xiv+124.
100. PAN, Q., Notes on Modern Marriage. *China Critic*, 1929, 2, 169-172.
101. PATERSON, D. G., and LANGLIE, T. A., The Influence of Sex on Scholarship Ratings. *Educ. Admin. & Super.*, 1926, 458-468.
102. PAULI, R., Zur Psychologie der Geschlechter. *Arch. f. d. ges. Psychol.*, 1928, 66, 117-154. (Cf. *Psychol. Abstr.*, 1929, 3, No. 3496.) 1928, 66, 117-154.
103. PEDERSEN, V. C., *The Man a Woman Marries*. N. Y.: Minton, Balch, 1929. Pp. xiv+266.
104. PERRY, W. M., Are Boys Excelling Girls in Geometric Learning? *J. Educ. Psychol.*, 1929, 20, 270-279.

105. POLLOCK, H. M., Mental Disease in the U. S. in Relation to Environment, Sex, and Age. *Amer. J. Psychiat.*, 1925, 5, 218-231.
106. PORTER, J. P., Emotional Sex Differences in College Freshmen as Indicated by Accumulative Error Scores and Comparable Measures. *Psychol. Bull.*, 1928, 25, 174-175.
107. PRENGOWSKI, P., Zur Frage der sogenannte Menstruationspsychosen. *Psychiat.-neur. Woch.*, 1927, No. 52, 571. (Cf. *Psychol. Abstr.*, 1928, 2, No. 2234.)
108. PRESCOTT, D. A., Le Vocabulaire des enfants des écoles primaires de Genève. *Arch. de Psychol.*, 1929, 21, 225-261.
109. PYLE, W. H., *Nature and Development of Learning Capacity*. Baltimore: Warwick & York, 1925. Pp. 122.
110. RIDDLE, O., and REINHART, W. H., Is the Manoilov Reaction a Better Test for Metabolic Level than for Sex? *Proc. Soc. Exper. Biol. & Med.*, 1927, 24, 359-362. (Cf. *Psychol. Abstr.*, 1928, 2, No. 1476.)
111. RODIER, G., Intuition féminine et logique masculine. *Psych. et vie*, 1928, 2, 210-211.
112. SAWTELL, R. O., Sex Differences in the Bone Growth of Young Children. *Amer. J. Phys. Anthropol.*, 1928, 12. (Cf. *Child Dev. Ab. & Bibliog.*, 1929, 1, No. 244.)
113. SCHEUER, O. F., Student und Studentin. *Zeit. f. Sex-wiss.*, 1927, 14, 121-128.
114. SCHEUER, O. F., Bibliographie der Sexualwissenschaft. *Zeit. f. Sex-wiss.*, 1927, 14, 72-84, 97-103.
115. SCHEUER, O. F., Bibliographie der Sexualwissenschaft. *Zeit. f. Sex-wiss.*, 1928, 14, 359-367.
116. SCHILDER, P., On Homosexuality. *Psychoan. Rev.*, 1929, 16, 377-389.
117. SCHULTZ, R. S., A Test for Motor Capacity in the Industries and in the School. *J. Appl. Psych.*, 1928, 12, 169-189.
118. SEWARD, G. H., Recognition Time as a Measure of Confidence. *Arch. Psychol.*, 1928, No. 99. Pp. 54.
119. SOURASKY, A., Race, Sex, and Environment in the Development of Myopia. *Brit. J. Ophth.*, 1928, 12, 107. (Cf. *Child Dev. Ab. & Bibliog.*, 1929, No. 1110.)
120. SOUTH, E. B., Some Psychological Aspects of Committee Work. *J. Appl. Psychol.*, 1927, 11, 348-368, 437-464.
121. SOWTON, S. C. M., MYERS, C. S., and BEDALE, E. M., Two Contributions to the Experimental Study of the Menstrual Cycle. I. Its Influence on Mental and Muscular Efficiency. II. Its Relation to General Functional Efficiency. London: H. M. Stationery Office. *Rep. Indus. Fat. Res. Bd.*, 1928, No. 45. Pp. iv+68. (Cf. *Psychol. Abstr.*, 1928, 2, No. 2197.)
122. STADELMANN, H., Frauenpsyche und Psychose. *Psychiat.-neur. Woch.*, 1927, No. 11, 141-144.
123. STEWART, I. C., Sex Differences in Substitution and Time Estimation. *J. Comp. Psychol.*, 1926, 6, 243-265.
124. SUMNER, W. G., and KELLER, A. G., *The Science of Society*. New Haven: Yale Univ. Press, 1927. Volume 3, pp. 1485-2251.



125. VALENTINE, C. W., The Relative Variability of Men and Women in Intuitive Judgments of Character. *Brit. J. Psychol.*, 1929, 19, 213-238.
126. VITELES, M. S., and GARDNER, H. M., Women Taxicab Drivers. *Personnel J.*, 1927, 7, 349-355.
127. WEBB, P. E., A Study of Geometric Abilities Among Boys and Girls of Equal Mental Abilities. *J. Educ. Res.*, 1927, 15, 256-262.
128. WEITH-KNUDSEN, K. A., *Understanding Women*. N. Y.: Elliot Holt, 1929. Pp. xv+324.
129. WHIPPLE, G. M., Sex Differences in Intelligence-Test Scores in the Elementary School. *J. Educ. Res.*, 1927, 15, 111-117.
130. WHIPPLE, G. M., Sex Differences in Army Alpha Scores in the Secondary School. *J. Educ. Res.*, 1927, 15, 269-275.
131. WILLIAMS, H. D., Truancy and Delinquency. *J. Appl. Psychol.*, 1927, 11, 276-288.
132. WINSOR, A. L., The Relative Variability of Boys and Girls. *J. Educ. Psychol.*, 1927, 18, 327-336.
133. WISSLER, C., Sex Differences in Growth of the Head. *Sch. & Soc.*, 1927, 25, 143-146. (Cf. *Psychol. Abstr.*, 1927, 1, No. 945.)
134. WISSLER, C., Race and Sex Differences in Growth of Head Form. *Eugen. News*, 1927, 12, 81-83.
135. WOODY, T., *A History of Women's Education in the United States*. N. Y.: Science Press, 1929, 2 volumes, pp. xvi+608, xii+646.
136. WYLIE, M., Recognition of Chinese Symbols. *Amer. J. Psychol.*, 1926, 37, 224-232.
137. ZEMAN, H., Verbreitung und Grad der eidetischen Anlage. *Zeit. f. Psychol.*, 1924, 96, 208-279.

## SPECIAL REVIEWS

JUNE E. DOWNEY. *Creative Imagination*. N. Y.: Harcourt, Brace, 1929. Pp. viii+228.

A well-known writer on esthetics recently remarked that psychology will never illuminate the field of art so long as it confines itself to triangles, color preferences, and disembodied rhythms. Professor Downey, apparently recognizing the same inadequacy in the traditional psychological method, endeavors in *Creative Imagination* to find more fruitful approaches to the complex problems of esthetics. Not that she scorns the standard experiments—rather she makes profuse reference to them—but she does insist “not only upon the evanescence of imaginal content, its extraordinary complexity, and the possibility of its function in fragmentary and syncopated forms, but also upon the fact that a description in static terms does violence to the dynamic, fugitive onrush of thought, its quicksilver-like darting from one point of stress to another” (113).

The book is composed of twenty-nine short chapters. Written over a period of several years and sometimes published as independent studies, these chapters suffer somewhat from discontinuity. Even their logical ordering in book form fails to forge any systematic bond. But the author does not regard her contributions as providing a single consistent esthetic theory. Her interest is expressly one of description (12). In the course of her rich treatment of the intricacies of creativity she shows herself to be completely at home in the field of literature, willing to experiment and to test hypotheses, but definitely unwilling to sacrifice her comprehension of the total field for any spurious or partial theory.

Several of the chapters are analytical in nature, especially those which are concerned with imagery. While admitting individual variation in imagery, as in everything esthetic, the author speaks perhaps a little too frequently of types. Regarding eidetic imagery she writes, “The point of contact between my conjectures and those of the Marburg School is that both recognize certain features of visualization as symptomatic of psychophysical trends; both describe a rigid image in contrast to a flexible one; both find the latter characterizing the more imaginative individual. The conjectural physiological explanations in the two cases are different. Mine is quite

frankly obscure; the Marburg hypothesis is backed by some evidence in the field of internal medicine"(41).

Other chapters show a preference for the configurational method. "A poem is, in many ways, the finest possible example of a psychic pattern in which the ensemble determines each detail"(126). The "Introspective Snap-Shot" given by a creative writer (117-121) illustrates well the "total field" within which the configurationist must seek for the dynamical properties of inventiveness. Miss Downey regards the outstanding problem of creativity "why some persons' cogitations (conscious or unconscious) issue in *original* patterns, others in stereotyped or conventional ones"(160). In solving this problem the Gestalt conception of the unconscious seems to her to hold more promise than the psychoanalytic, which though it makes fruitful suggestions regarding motive, fails completely to account for talent or style.

A book dealing almost exclusively with the psychology of poetry should perhaps give more attention to the metaphorical consciousness than does the author's brief chapter on this subject. Much that she includes elsewhere under synesthesia, style, expressionism, and cartooning, might be brought under a more spacious and consistent treatment of the metaphorical process. Instead she is somewhat preoccupied with the imagery experienced by observers in response to the main and accessory parts of the figures of speech, and with the common background of mood from which the two items emerge and through which they are joined. The basic formula for poetry would seem to be the statement of a dominant theme (an object to be described or a mood to be interpreted), with elaboration by the aid of relevant but subordinate percepts. From this point of view the keystone in the edifice of poetry is the metaphor, and the metaphor is essentially a problem in the psychology of thought. With this central fact in mind, one can pass to the affective aspects of poetry without losing sight of its fundamentally conceptual nature. The humor resulting from the incongruous metaphor, the joy at the apt metaphor, the variational factor in the appreciation of metaphors, and many other aspects of the total problem could be neatly ordered around this basic conception.

The strength of the book lies in its adroit handling of special topics. Outstanding in brilliance are the chapters on "The Word-In-Itself," "The Poetry of Colour," and the two sections on psychological distance. One leaves this psychoesthetic panorama feeling that the author comprehends the complexity of her subject, and for that

reason has been talking about true art and genuine creation. With work of such horizon and such understanding available there should be less complaint from artists concerning the sterility and "impudence" of the psychological method.

GORDON W. ALLPORT

*Dartmouth College*

EDMUND S. CONKLIN. *The Psychology of Religious Adjustment*. N. Y.: Macmillan, 1929. Pp. xiv+340.

This book will serve as a convenient manual, summarizing as it does the main features of the psychology of religion, and citing the more important literature, including the latest studies. The psychological standpoint of the author may be characterized as functional, with a leaning toward a mild form of behaviorism. He has familiarized himself with all the better known religious communions in this country at the present time, and speaks with a knowledge derived not only from books but from first hand observation.

The psychological interpretations are most satisfactory with reference to contemporary American religious experience; attempts at universal statements are less convincing. For instance, it is asserted in italics that "*religion may be defined as designating that behavior and those behavior products which are associated with a belief toward some concept of a god or gods*" (p. 47). This is a good definition of religion as it exists in this country to-day, except that it leaves out Humanism. On the other hand, the definition can hardly be made to include the religions of some primitive peoples (*e.g.*, the aborigines of Australia), and Hinayana Buddhism; it at least puts the emphasis in the wrong place for most other forms of Buddhism, as well as for Confucianism.

A good analysis is made of the religious sentiment, which is distinguished from religious attitudes. The sentiment, which is acquired and does not have precisely the same constitution in all individuals, comes to include emotions of awe, wonder, submission, fear, love, and reverence. There is no specifically religious instinct. From a psychological point of view conversion and sanctification, both of which may occur repeatedly, must be regarded as forms of religious experience that are more intensified than worship and prayer, but are not unique experiences of a different order. Mystical experiences furnish a complex problem. They vary enormously. Among the factors that must be taken into account in their interpretation are motives, attitudes established, retraction of the field of consciousness,



free development of certain emotions, and the effect of introspective periods upon extravertive adjustments (p. 165).

Particularly interesting is the discussion of the appeals made by American churches. These vary in emphasis on intellectual, ceremonial, and ethical interests; they all arouse emotion in some form, and would not be religious if they did not (pp. 84 ff). A comparison of the orders of worship in non-liturgical, Episcopalian and Roman Catholic churches discloses similar efforts to arouse a definite sequence of thoughts and emotions: first, awe (including inferiority, wonder and fear), followed by tender emotion (induced by a prayer of confession and assurance of forgiveness). Jewish worship evokes emotions generally similar, but not in so precise a serial order. It appears impossible for any particular type of service to appeal equally to persons who differ so widely in their religious emotions and sentiments as Americans do to-day. This partly explains why religious appeals are often weak and ineffective. Suggestions are offered for the improvement of religious education in the effort to remedy this situation.

WILLIAM KELLEY WRIGHT

*Dartmouth College*

BERNARD C. EWER. *Social Psychology*. N. Y.: Macmillan, 1929. Pp. 436.

Fully aware of the breadth and diversity of the subject he is to attack, Professor Ewer defines the present task of social psychology and the purpose of his book as "that of synthesis and organization" (vi). This book's "distinctive features are its explicit statement of the nature of higher and lower levels of social process, and its emphasis upon thought as a supremely important social function" (vi).

In the first part of the book, "Fundamental Activities," we find an attempt to work out some method to study "the traits of mind which underlie social life" (6). The author says that he is trying to weave the ideas of McDougall and F. H. Allport into "a unitary synthesis" of his own. Hence the starting point is the individual and the ultimate purpose is to explain that social consciousness or "feeling-attitude" (21) which the individual acquires in social relationships. The explanation proceeds on the basis of the four levels of instinct, learning, imitation, and reflective thought.

After pointing out F. H. Allport's criticisms of McDougall's definition of instinct, the author tries to steer a middle course by

interpreting the term instinct as "a spontaneous interest in a certain kind of object, with more or less definite response to its presence, and the development of emotion in relation to it" (57). Further compromise is seen in his list of the most noteworthy instincts which are "gregariousness, domination and submission, pugnacity, sex, and parental care" (60). If the author has avoided landing himself in an antinomy, he has done so, perhaps, at the sacrifice of any basic, rigid explanation. There seems to be throughout a tendency toward over-simplification in accounting for the dynamism and the mechanism of behavior. His general consideration of learning is open to the criticisms of *Gestalttheorie*.

In Part II there is a description of those factors which go to make up "Individuality." Here the author finds himself on much surer ground and his competent observation continues into Part III on the "Social Order." This is a discussion of class, crowd, organization, custom and fashion, morals and manners, and of social control, conflict, and progress. No new interpretations are offered but the various phenomena are clearly and ably handled. Part IV contains "Appendices on Social Behavior Systems" such as speech, play, religion, patriotism, etc.

Negative criticism might point to the rather hasty explanation of so important a social factor as the acquisition of language, the use of terms in the beginning which are not clearly defined (the book is meant for elementary use), and the lack of bibliographies. On the positive side we find that the author does not overlook the important part that integration and the tendency towards unity play in behavior. In general the book is weak in basic explanation but rich in description of social behavior.

HADLEY CANTRIL

*Harvard University*

## BOOKS RECEIVED

EDWARD B. TITCHENER, *Systematic Psychology: Prolegomena*. N. Y.: Macmillan, 1929. Pp. xi+278.

C. JUDSON HERRICK, *The Thinking Machine*. Chicago: Univ. of Chicago Press, 1929. Pp. xii+374.

ALEXANDER HERZBERG, *The Psychology of Philosophers*. (Trans. by E. B. F. Wareing.) N. Y.: Harcourt, Brace, 1929. Pp. x+228.

FRED A. MOSS, *Applications of Psychology*. Boston: Houghton Mifflin, 1929. Pp. x+477.

RAYMOND H. WHEELER, *The Science of Psychology*. N. Y.: Crowell, 1929. Pp. xvii+556.

W. B. PILLSBURY, *The History of Psychology*. N. Y.: Norton, 1929. Pp. 326.

S. W. and J. T. PIERCE, *The Layman Looks at Doctors*. N. Y.: Harcourt, Brace, 1929. Pp. 251.

JOSEPH PETERSON and LYLE H. LANIER, *Studies in the Comparative Abilities of Whites and Negroes*. Mental Measurement Monographs, 1929, No. 5. Pp. vi+156.

DOROTHY SPEER, *An Experimental Evaluation of Seven Composition Scales*. Johns Hopkins Univ. Stud. in Educ., 1929, No. 14. Pp. x+85.

L. L. THURSTONE and E. J. CHAVE, *The Measurement of Attitude*. Chicago: Univ. of Chicago Press, 1929. Pp. xii+96.

EDOUARD LE ROY, *La Pensée intuitive*. Paris: Boivan. Pp. vii+204.

ROBERT S. WOODWORTH, *Psychology* (Revised Edition). N. Y.: Holt, 1929. Pp. xiii+590.

JAMES H. DUNHAM, *Principles of Ethics*. N. Y.: Prentice-Hall, 1929. Pp. xiii+570.

ALBERT P. WEISS, *A Theoretical Basis of Human Behavior*. Columbia: Adams, 1929. Pp. xvii+479.

ROBERT SAUDEK, *Experiments with Handwriting*. N. Y.: Morrow, 1929. Pp. 394.

J. E. W. WALLIN, *A Statistical Study of the Individual Tests in Ages VIII and IX in the Stanford-Binet Scale*. Mental Measurement Mono., 1929, No. 6. Pp. vii+58.

JACQUES CHEVALIER, *L'Habitude*. Essai de metaphysique scientifique. Paris: Boivin, 1929. Pp. xviii+256.

V. E. FISHER, *An Introduction to Abnormal Psychology*. N. Y.: Macmillan, 1929. Pp. x+512.

BERNARD C. EWER, *Social Psychology*. N. Y.: Macmillan, 1929. Pp. ix+436.

Western Australia, Department of Public Health. State Psychological Clinic. *Annual Report for the Year June, 1927-1928*. Perth: Simpson, 1928. Pp. 24.

EDMUND S. CONKLIN, *The Psychology of Religious Adjustment*. N. Y.: Macmillan, 1929. Pp. xiv+340.

HERBERT S. CONRAD and HAROLD E. JONES, *Psychological Studies of Motion Pictures*. III. Fidelity of Report as a Measure of Adult Intelligence. IV. The Technique of Mental-Test Surveys among Adults. Univ. of Calif. Pub. in Psychol., 1929, 3, 246-284.

MERLE H. ELLIOTT, *The Effect of Appropriateness of Reward and of Complex Incentives on Maze Performance*. Univ. of Calif. Pub. in Psychol., 1929, 4, 91-98.

E. C. TOLMAN, R. C. TRYON and L. A. JEFFRESS, *A Self-Recording Maze with an Automatic Delivery Table*. Univ. of Calif. Pub. in Psychol., 1929, 4, 99-112.

R. RUGGLES GATES, *Heredity in Man*. N. Y.: Macmillan, 1929. Pp. xiii+385.

W. CARSON RYAN, JR., *The Literature of American School and College Athletics*. N. Y.: Carnegie Foundation Bull. 24, 1929. Pp. xlv+305.

SAM R. LAYCOCK, *Adaptability to New Situations*. Baltimore: Warwick & York, 1929. Pp. xi+170.

LOUISE A. NELSON, *Variations in Development and Motor Control in Goiterous and Non-goiterous Adolescent Girls*. Baltimore: Warwick & York, 1929. Pp. xii+193.

NEAL BILLINGS, *A Determination of Generalizations Basic to the Social Studies Curriculum*. Baltimore: Warwick & York, 1929. Pp. xi+289.

A. A. ROBACK, *Jewish Influence in Modern Thought*. Cambridge: Sci-Art, 1929. Pp. 506.

FRANCIS AVELING, *The Psychological Approach to Reality*. London: Univ. of London Press, 1929. Pp. xi+251.



## NOTES AND NEWS

DR. CHRISTINE LADD-FRANKLIN, lecturer in psychology and logic at Columbia University and known for her work in color vision and symbolic logic, died on March 5, in her eighty-third year.

PROFESSOR EUGENIO RIGNANO, professor of theoretical philosophy at the University of Milan and editor of *Scientia*, died at Milan on February 9, 1930.

DR. G. HEYMANS, professor of psychology at the University of Groningen, died on the 18th of February in his seventy-second year.

PROFESSOR KARL M. DALLENBACH of Cornell University, will teach in the summer session at the University of Oregon. During the session of 1930-1931 Professor Dallenbach will be Visiting Professor of Psychology at Columbia University, New York City, during the absence of Professor R. S. Woodworth on sabbatical leave of absence.

PROFESSOR K. S. LASHLEY of the University of Chicago was elected to membership in the National Academy of Sciences at the recent meeting held April 30, 1930.

DR. CARNEY LANDIS, Associate Professor of Psychology at Wesleyan University, has resigned his post to accept the position of Research Associate in Psychology at the New York State Psychiatric Institute and Hospital, Columbia Medical Center, New York City, effective September 1, 1930.

AT the annual meeting of the Ohio College Association, Horace B. English of Antioch College was elected President of the Section of Psychology and Martin Remp of the College of Wooster was elected Secretary-Treasurer.

PROFESSOR JAMES P. PORTER of Ohio University was recently elected Vice-President of the Ohio Academy of Sciences and Chairman of the Section of Psychology.

#### EDITORIAL NOTE

It is with great regret that the Editorial Board of the Publications of the American Psychological Association announces the resignation of Professor Madison Bentley as Editor of the *Journal of Experimental Psychology*. Professor Bentley has been associated with this group of journals for many years, formerly as editor of the *Psychological Index* and more recently as editor of the *Journal of Experimental Psychology*. Beginning with the June issue, Professor Samuel W. Fernberger of the University of Pennsylvania, since 1925 editor of the PSYCHOLOGICAL BULLETIN, will assume the editorship of the *Journal of Experimental Psychology*. The Editorial Board is pleased to announce the appointment of Professor Edward S. Robinson of Yale University as editor of the PSYCHOLOGICAL BULLETIN, to take effect with the June issue.

V

P

HO

G. V.

son

J. T.

Gen

Book

Note

En